THE VOICE OF IT MANAGEMENT - WWW COMPUTERANS IN COM

Attendees Pan Reborn Comdex

Big vendors absent: users say show needs to do more to restore its relevance to corporate [1]

57 T000 8 WEISS The promise was for a smaller

more IT-focused Comdex this year, with less emphasis on underets and elite But on the show floor at the Las Veeas Convention Center

Inct month the meeting from many attendese was that the chow's onsmizer, Medial ive International Inc.



spicuous for their sheepen tolds from Microsoft Corp., Dell Inc., Computer Associates International Inc. and Siebel Sur-Comdex pass 49

My employer is successful at building employee loyalty:

Don't know 2% BASE-DYS. memorials SHRVEY shows that hudnet oute huge workloads. staff lavoffs training cuts and salary freezes have

YEAR'S JOB

SATISFACTION

created an IT workforce that's more vocal about its frustrations. More than half of the IT workers polled said they're less satisfied with their jobs than they were a year ano. Find out what else they're saving about their



MAYEMBER 24 2442 Wh 27 NO 47 FORCE

After a Year, Tablet Still Niche

Adoption may get jump-start with pen OS upgrade next year

EV DOD DREWIN A year after its introduction. Microsoft Corp.'s Tablet PC technology remains a niche product, according to analysts and bardware wendow. Due the company hopes user adoption rates will rise when an upgrade of the pen-based operating system hits the market

The updated software, formally known as Windows XP Tablet PC Edition 2004, is due to ship by the end of hone. Bill Gates, Microsoft's chairman and chief software prehitoet said in his Comdex/Fall 2003 keynote speech that the upgrade should make it easier for developers to add so-called digital ink canabilities to new and existing applications. Some corporate users are

already making big investments in tablet devices. For example, HealthSouth Corp., a Birmingham, Ala-based com pany that provides outrations surgery and other health care services, this month said it had ordered 5,000 tablet PCs cauipped with wireless LAN

Tablet PCs, page 14 hinibahan ililaa dada dada dada dii....l #8234939/CB/0# CH2003470 801 12111

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IBM Pushes New Bank Apps Eves J2FE to replace DB2 databases, Toucther, the two deals signal the start of a

Cobol core systems but costs deter users

BY LUCAS MEARIAN In its second such deal since late October IBM last week said it plans to work with a banking software vendor in India to develop IZEE-based ap-

plications that will be pinched as a replacement for banks' aging core processing systems. from the joint development racts will run on IBM's serv-

The software that will result ers and use its WebSphere middleware technology and

sell. Most major banks remain extremely reluctant to invest the \$100 million or more it's estimated to cost to replace their Cobol-based mainframe applications with more modern systems, analysts said. Sadru Teja, vice president of IT architecture at Royal Bank of Canada in Toronto, said

of other decades-old programthat for now the company has But it may not be an easy Bank Apps, page 16 IBM'S SOFTWARE PARTNERS

bid by IBM and its partners to

persuade banks to move away

from applications built on

ming languages.

Cobol and the sporhetti code

Thinner
Designs:
Power efficiency
allows for smaller
cooling systems
and lighter
notebooks.

Integrated
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wireless LAN
capability eliminates
the need for
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1

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Hello Customers

CONTENTS



Performance Pay

In this week's Technology section: Incentive pay is one way to motivate and retain employees. Enterprise incentive management software can help make those benefits possible or make bigger pieces of the pie available to more people. Page 23



11.24.03

Apps Under Wraps

Also in this week's Technology section: Application-packaging tools deliver consistency, eliminate conflicts and can cut support costs. But the tools aren't easy to master and won't succeed without strict desktop management policies. Page 30

NEWS

- 6 Software failure may have "contributed significantly" to this summer's blackout, a task force finds.
- 6 HIPAA compliance may soon be easier for health care organizations, thanks to guidelines under development by a nonprofit organization.
- 7 Sun Microsystems wins a big Linux desktop deal in China, but U.S. users are more reluctant to sign on.
- Sun outlines a plan to offer servers based on AMD's Opteron processors.
- 8 PeopleSoft adds the business applications of J.D. Edwards to its lineup of hosted apps.
- 10 Siemens upgrades its IP telephony system to scale up to 100,000 end users on a single network and adds a dynamic routing capability.
- 12 Cisco teams up with three security vendors on a program to ensure access control and improve policy compliance by remote workers.
- 14 AT&T Wireless upgrades its high-speed nationwide cellular network and says it's addressing problems that are associated with the start-up of a new CRM system.
- 18 SSA Technologies revamps Baan's development plans and promises to upgrade its aging Basn IV applications, which could let users put off migrations.

TECHNOLOGY

- 28 Q&A: Improved Security
 Through IT Diversity. Security garu Bruce Schneier talks
 about the risks of monolithic
 IT infrastructures and why
 software vendors should be
 liable for the June they create
- 29 Future Watch: Smart Auctions. Researcher Tuomas Sandholm has developed techniques using artificial intelligence to help make business-to-business online auctions more fair and flexible.
- 32 Security Manager's Journal: What Security Policies? Mathias Thurnam discovers that a security awareness program be implemented within his company has been completely ignored.

MANAGEMENT



OPINIONS

- On the Mark: Mark Hall finds the future of on-demand computing's policy management software at Comdex.
- 20 Maryfran Johnson learns from top IT leaders at Comdex that they now believe users, not vendors, are in the technology driver's sear.
- 20 Pimm Fox is listening to new ideas in voice-recognition systems, and he likes what he's hearing.
- 21 David C. Wyld argues that never is too soon for a tax on online commerce.
- 34 Micholas Petreley explores parallels between Novell's exploits and a certain popular movie sequel.
- 42 Paul Gien says that as an IT manager, keeping your employees satisfied shouldn't be your primary focus. Instead, try to find ways to keep them motivated.
- 50 Frankly Speaking: Frank Mayee takes another look at SCO's attempt to throrthe Linux in the courtroom. If you're a small company using Linux 2-8 and doing business in Utah, you'd better get yourself a good lawyer, he saw,

ONLINE

RFID Privacy Scare is Overblown OPINION: Jay Cline says the RFID communia needs to counteract the public hysteria abor possible privacy abuses. O facial in 47070

Best Practices for Wireless Network Security MOBILE/WIRELESS: A University IT and

WORLE/WIRELESS: A university IT and is manager explains how to mitigate eight major wireless LAN security risks.

Disaster Planning Never Ends DISASTER RECOVERY: Two years after embarking on an effort to build a builet proof system, Menaba, the fifth-largest regional arrine in the U.S., is still working on data

airline in the U.S., is still working on data protection. © Quinkink a3020 Optimize Your Web Site For the Heliclasse

For the Holidays
WES SITE MARAGEMENT: Want online shop
pers to find your business this holiday season? Twent your site to be search-enginefriendly. © Quield int 42742

Develop a More Effective Style CAMEERS: Passed over for promotions? Poor people skills are often to blame. The good news is that you can improve your in

good news is that you can improve your interpersonal skills and "emotional intelligence." Here's a step-by-step approach. O Quicklist 42864



Sun Weighs New Open-Source Plan

Sem Micromotores Inc. said it's during a plan to offer verns of its application and Web wer unflusing under coonsource licenses. Jonethan Schoortz, Sun's executive vice ident of software, said the idea is an outprowth of an effort to promote use of the company's Java Desktop System technology in China (see story, name 7).

J2EE 1.4 Upgrade Ready for Release

ium said Version 1.4 of the Java 2 Interprise Edition specification will become available today, alo with a poltware development ki pment k* that includes a fully deciments ion of its application serve offware. Sun is offering open-surce license terms on J2EE 1.4 initial deals with The Apache Selt-ware Foundation and JBeen 211 mem

Novell Maps Plan For Mono Project Herest Inc. detailed a road man for

the Mono project, a communit open-source version of Microsoft Corp.'s Met technology for Linex and Unix systems. An initial reto is due by mid-2004. parately, Noveli reported fiecal 2003 revenue of SLI billion and a not loss of \$162 pulls 12, Hovel lost \$247 million, o on revenue of \$1.1 billion

Pivotal Rejects **New Buyout Bids**

Pivotal Corp. in Vanc out bids by two companies ors of the CRM software von der approve on earlier plan to merge with Tailoma Corp. In Kirk land, Which. A shareholders meet ing on the various acquisition pro

AT DEADLINE Software Failure Cited in Blackout Investigation

Task force points to malfunction at FirstEnergy site

---HE TASK FORCE investigating the cause of the August blackout that crippled much of the Northeast and parts of Canada conchaded that a software failure at Akron

Ohio-based FirstEnersy Corp. may have contributed significantly" to the outage. The interim report of the U.S.-Canada Power System Outage Task Force, released last week, highlights the failure of various IT systems that thwarted utility workers' ability to contain the blackout. It found no evidence that malicloses insiders or external saboteurs were responsible for

the outpee

FirstEnerry's Alarm and Event Processing Routine, a software program that gives operators visual and audible indications of exents occurring on their portion of the grid, began to malfunction. As a result, "key personnel may not

the need to take ---sures at critical times," the report states In addition, "some companies appear to have had only a

limited understanding of the status of the electric systems outside their immediate control," the report concludes. "This may have been, in part, the result of a failure to use modern dynamic mapping and data sharing systems Io a statement released Nov. 19. FirstEnergy President and

According to the task force thony I. Alexander said the company remains "convinced" they the blackers south by traced to any one utility sustem. "We recognize that our computer system experienced problems that day," he said. - "After an extensive have been aware of analysis, we submit-

MORE ONLINE For more information on this steed a report to the time, was our Blackest 2003 stack force that idensecial Coverage page

tified a previously undetected flaw in vendor software that resulted in the loss of an alarm function, affecting our operators' understanding of monte on our mutem analysis on a few selected

However "by focusing its events, the conclusions the task force reached don't address the complexity and marnitude of operations on the interconnected erid," he added. Aside from the alarm soft.

ware failure, the task force found that Internet links to Supervisory Control and Data Acquisition (SCADA) systems weren't properly secure. It also concluded that some operators

lacked a system to view the status of electric systems outside their immediate control Of particular concern to the task force is the existence of direct and remote links between corporate networks used at utilities and the realtime SCADA systems used to manage the power grid. Until now the electric industry has refused to publicly acknowledge these linksges and the vulnerability they pose. But the task force report outs SCADA system security at the center of the industry's most pressing security challenges.

"The existence of both intornel and automal links from SCADA systems to other systems introduced vulnerabilities" the report says But it stops short of assigning blame for the blackout to a series of sinuses and soorms that his she Internet prior to and during the outage, O 43030

Guidelines for HIPAA Compliance in the Works

MAR VIJAYAH Health care organizations looking for more information on how to comply with HIPAA security mandates may soon get more help

URAC, a ponerofit accorditation agency for the health care industry, along with the Workstroup for Electronic Data Interchange and the National Institute of Standards and Technology, is developing guidelines for implementing HIPAA security policies.

The Healthcare Security Workgroup, which the three organizations created earlier this year, met in Washington last week to discuss how to consolidate industry best practices and security standards into a set of easily implemented instructions. The goal is to give organizations subject to the Health Insur-

ance Portability and Accountability Act something they can use to ensure compliance with the law's security require ments by the April 15, 2005 deadline, said Adam Stone, a member of the workeroun. The group aims to deliver the guidelines by the middle of

pest wear "No standard measures exist in the health care industry to implement HIPAA's security requirements. Stone said. *One of the major problems

ferent ways to approach it in terms of compliance." The workgroup will study how it can adopt and adapt NIST's more general security specifications for federal information systems in the health care sector said Liss Gallagher, senior vice president of Washington-based URAC. Similarly, the work-

with the rule is that it is so

broad. There are a million dif-

group will gather information on best practices, case studies and other standards efforts by organizations such as the Healthcare Information and Management Systems Society "We are going to gather all

HIPAA HIPAA Hooray

this information and make it available on a national basis* Gallagher said, by means of white papers and a portal site. The community feedback that's being collected by the workeroup is also useful in adapting NIST standards for the bealth care industry, said Arnold Johnson, a NIST program manager in Washington. "Real standards are very, very [much] needed," said

Roger Brown, a senior IT auditor at Jefferson Health System, a \$2 billion health care nization in Radnor Pa "Only the economically strong [companies] will comply with the intent of the law. Most will spend the absolute minimum they think they can pet away with." Standards will provide a formal yardstick for measuroliance, he said.

FULL HIPAA COVERAGE

China Embraces Linux Desktop, But Caution Prevails in the U.S.

Sun gets first big win overseas, where open-source adoption has accelerated

BY PATRICK THIBODEAU
Sun Microsystems Inc. landed
the largest Linux desktop deal
in history with an agreement
announced last week involving a consortium of technology providers in China.

gy providers in China deal But while Sun's China deal will raise the visibility of desktop Linux internationally, it isn't likely to speed US. adoption, said analysts and even users who have already made

users who have already made the switch.

This is a trend, not a fad, said Scott Testa, chief operating officer at Mindbridge Inc., a Philadelphia-based intranet development company that has implemented a Linux desktop strategy. Although he's not expecting accelerated adoption in the U.S., "at the end of the day, there are working environments where Linux one the desktop makes a lot of

The deal calls for Sun to provide China Standard Software Co. with as many as I million seats per year of its Java Desktop System. China Standard Software is a consortium of Chinese technology companies that executes gov-

sense." Testa said

ernment initiatives.

Most large Linux client installation in the U.S., such as Cleveland-based paint manufacturer Sherwin-Williams Co.3 deplayment of nearly 10,000 Linux-based 18M PCs (Quieklina 2002), have been for point-of-sale or operational support. They may compete with Microsoft Corp. offerings but aren't knowledge-worker deaktops. Major Linux deaktop amouncements.

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Michael Jennings, director
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the Sherwin-Williams deal in
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Linux desktop vendors, such as Xandros Inc. in New York, say U.S. businesses are interested and tell of hushhush Linux desktop pilots in some very large companies

Advanced Micro Devices Inc.'s

64-bit Opteron processor, a

move that may belo put the

the coming year.

chip on more radar screens in

That will certainly be the

tems administrator at the Uni-

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that aren't ready to talk about their plans. "They are taking their time, which is fine," said Rick Bernstein, chairman of

But it's a different story overseas. There is a worldwide, government-led pash toward open-source systems. The European Union, India, Thailand, the Philippines, Vietnam and other countries are investigating open-source

or have already adopted policies that embrace it. Sun is moving aggressively internationally with what may be the most well-rounded Microsoft alternative for the desktop, Aside from its Javn Desktop System, which imcludes the StarOffice productivity saits. Sun markets



dles it with its Sun Ray thin client. According to Sun. StarOffice files are compatible with Microsoft Office files. But despite the deal announced last week, China won't necessarily be an easy market for Sun.

Wuxi, China-based Evermore Software Co., for example, is selling a lava-based cross-platform office productiviry product FIOffice to compete with Microsoft CV fice. StarOffice and others in China Evermore President Gus Tsao claims the product is a true interrated office miss that offers a single file format and one user interface for documents, spreadsheets and graphical applications, Evermore plans to launch the product in the U.S. in February at the Demo2004 conference in Scottsdale, Ariz. In China, Evermore has

users, but the majority are using pirated copies. "In China, it's hard to sell software, because piracy is rampant everywhere." Tsao said. But the government, which is providing more than half of Evermore's backing, is beginning to crack down on piracy. © 43031.

Sun Outlines Plan to Offer Opteron-based Servers

Says first models due early next year with the says the Operon is an attractive alternative to 22-bit work outlined plant to begin offering x86 server running.

both 64- and 32-bit applications written for Intel systems. Sun announced at the Condex trade show in Las Vegas last week that it had entered into a broad agreement with Sunnyvale, Calif-based AMD to conduct joint sales and collaborate to optimize Solaris,

Java and development tools for the AMD chip. The companies said they plan to work with third-party application

vendors on Opteron susport.

"It's a broad and deep retationable," said Neil Knor.
San's executive vice president of volume systems products.
Sun officials said that the decision to offer Opteron wouldn't affect the company's investment in its Spare processors and that Sun is committed to Spare's ongoing improvement. Sun forecasted the move would port Solaris to Opteron (Opicial Line) Algalot In vitil also would port Solaris to Opteron (Opicial Line) Algalot In vitil also would port Solaris to Opteron (Opicial Line) Algalot In vitil also would provide the solaris to Opteron (Opicial Line) Algalot In vitil also would prove Solaris to Opiceron (Opicial Line) Algalot In vitil also would provide the Algalot In vitil also would be provided the also would be provided the Algalot In vitil also would be provided the also would be provided to the also would be provided the also would be provided the also would be provided to the also would be provided th

For Sun, which has seen flat revenue in recent quarters, of fering Opterno-based Linux servers will belp it participate in what is "a very vibrant sector of the server market," said Jean Bozman, an analyst as market research firm IDC. IBM in August began offer-

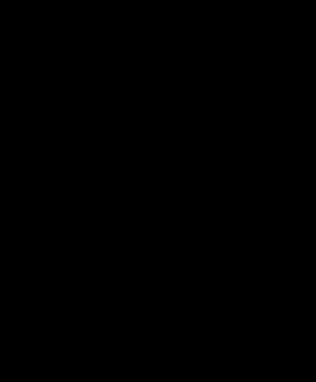
offer Linux on Opteron-based

in August began oriering Opteron-based systems but is focusing strictly on high-performance technical computing users, who are typically the early adopters of new technologies. And that's currently where the demand is. One of AMD's largest Operorousers is Los Alamos National Laboratory, which amounced in August that it had selected Opteron for two Linux clusters, one with 2,800 processors (Quick-Link 40054). Sun's plan is to extend Opteron to the main-

with 2.800 processors [Quick-Link 40654]. Sun's plan is to extend Opseron to the mainstream computing market. Sun said its Opteron pricing and server configuration plans aren't et available.

Hewlett-Packard Co., which co-developed the 64-bit Itanium chin with Intel has no plans to offer Outeron Nashua, N.H.-based Illum nata Inc. analyst Gordon Haff said be believes that Sun's move gives it a strong x86 offering in the small-to-midrange server market without hurting its high-end Source business. They are commit ted to their high-end system," said Haff. "I don't see any rea son to believe that Sun would move away from Spare any-





Sun gets first big win overseas, where open-source adoption has accelerated

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Evelution mail and calms software
Awa 2 Standard Editors
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StarOffice separately and bundies it with its Sun Ray thin client. According to Sun. StarOffice files are compatible with Microsoft Office files. But despite the deal announced last week. China won't necessarily be an easy market for Sun.

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Says first models
due early next year

BY PATRICK THEBODEAU

Support will have in
He says the Optero
tractive alternative
chips and Sun's mo
sive Sparc RISC pro

Sun Microsystems Inc. Inst week outlined plans to begin offering, x86 servers running Advanced Micro Devices Inc.'s 64-bit Operon processor, a move that may help put the chip on more radar screens in

the coming year.
That will certainly be the
case for Shane Brauner, systems administrator at the University of Houston's High Performance Computing Center,
who said he's very interested
in Opteron but believes application and compiler support

who said he's very interested in Opteron but believes application and compiler support from verdors "isa't really that great right now." For that trason, the center recently opted for systems running Intel Corp.'s 32-bit Xeon chips rather than Opteron, he said. But Brauner said he believes

that by the time Sun releases its first Opteron-based servers early next year, application support will have improved. He says the Opteron is an attractive alternative to 32-bit chips and Sun's more expensive Spare RISC processors because of its ability to run both 64- and 32-bit applications written for Intel systems.

tions written for Intel systems Sun announced at the Comdex trade show in Las Vegas last week that it had entered into a broad agreement with Sunnyvale, Calif.-based AMD to conduct joint sales and collaborate to continues Solaris.

> Opteron Opportunity

Under their ellience, AMD and Sen will: a Part Solaris to Opteron a Support Linux on Opteron of Opteron and developer tools for Opteron

platform and developer tools for Opteron Week to accelerate third-party age succent for Opteron Java and development tools for the AMD chip. The companies said they plan to work with third-parry application vendors on Opteron support. "It's a broad and deep rela-

"It's a broad and deep relationship," said Neil Knox.
Sun's executive vice president of volume systems products.
Sun officials said that the decision to offer Opteron wouldn't affect the company's investment in its Spare processors and that Sun is committed to Spare's ongoing improvement.
Sun forecasted the move last month when it said it.

would port Solaris to Operon [QuickLink 42184]. It will also offer Linux on Operon-based systems.

For Sun, which has seen flat revenue in recent quarrers, of fering Operon-based Linux servers will help in participate

in what is "a very vibrant sector of the server market," said Jeán Bozman, an analyst at market research firm IDC. IBM in August began offering Opteron-based systems but it foreigne screen on

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time soon." © 43032

WHAT MANAGEMENT SAYS
Too Sin and AMD sains discuss the deal
Operation 42905

European Panel Probes Oracle Rid

The European Commission said it has been an in-death evaluat of Oracle Corn 's beetile telecore bid for PeopleSoft Inc. after an initial probe showed that the proposed combination "merits further analysis." The commission ects to spend four months looking at the potential impact of a taksover on competition in the ess applications market.

PeopleSoft Extends User Refund Offer

In other news related to Oracle's over bid. PsonisSoft said it has extended through Doc. 31 a program under which it's momis ing to pay users up to five times the cost of new software licenses if an acquisition takes place and the products they buy are discon timed. Oracle has asked a Delaware court to invalidate the so called customer assurance program (QuickLink 42845).

Sun Buys Maker Of Identity Tools

Sun Microsystems Inc. said it plans to herr Wavecet Technologic gins Inc., an Austin-based vendor for an undisclosed amount of cash. Sun, which expects to con plete the deal next month will intograte Waveset's tools with its own Java System Network Identity Services offerion.

Short Takes

WORLDCOM INC., which now does ness as MCI, said it has signed a network services deal with the state of Virginia that has a poten-tial value of \$250 million over 10 years. . . . 3COM CORP. and HUAWEI TECHNOLOGIES CO. launched a Hong Kong-based net working joint venture after receiving approval from China's gov ment. . . . The U.S. POSTAL SER-VICE is dropping an online bill-pay ing service operated by Norcross Sa -harsed CHECKERFF CORP. canceled a hosting service

MARK HALL ON THE MARK

CA Ties Windows, Linux Into On-Demand ...

... computing this week with its release of the beta version of Unicenter NSM Dynamic Reconfiguration Option. Next month the company will release its first product for on-demand operations that lets IT managers set policies for allocating resources inside Solaris systems. Unicenter sets policies that are implemented by Palo Alto, Calif.-based VMware Inc.'s virtual partitioning software [QuickLink 39965]. According to Gail Persil, director of computer management for Unicenter at Comouter Associates, technical limits today restrict on-demand to one for Gary Miliefsky, CEO of Predator

commuter - concretty a his hankin' multiprocessor system, running orbs of memory carceled out to shared applications. Although certainly a big part of the Solaris utiliverse, systems like that aren't exactly the raths around which the Windows and Linux planets revolve: they usually run a single app on a single bux. To apply ondemand principles and, in the case of

distributed machines was need to be able to push workloads as well as policies back and forth across the network. Persil supposes that this will be real in about a year, with a possible demo at the next Comdex. Of course, if the show's attendance continues its downward trend that will mean two journalists, 15 security guards and a wayward gambler or two will be the only ones around to witness it. e Virgi-

dors in nearly empty Comdex

booths were just the ticket

Unicenter, policies to these

don't have to wait for him to make a deal to get your hands on the \$4,995 appliance. You can get the device with the lat-

est software. Version 2.L this Friday, Auditor can detect thousands of security, governance and privacy vulnerabilities. Inchading ones affecting HIPA A and Surbaner-Order compli-

Watch Inc. in North Chelmsford Mare

He went to Las Vegas in search of OEMs for

his vulnerability assessment tool. Audio

of free time to hear his nitch. But you

tor. Potential vendor partners had plenty

ance, for up to 32 IP addresses. ProdatorWatch claims. * The Eclipse open-source developer framework, now in Version 2.1.2, is scheduled to have its 30 release in lune Expect to see changes in the user interface so it can more effectively handle the bundreds of plac-ins developers. are using, and you won't have

to rehoot every time you add one. The Java tools will also be improved. Those promised changes please IBM's John Wiegand, technical lead for Eclipse, But what's making him positively giddy is that users are taking the framework into an area he never dreamed of, "People want to build their applications on top of Eclipse," he says. That means the opensource code won't just be a nifty development platform - it can be the runtime engine for corporate applications. When your Windows systems get hit by a virus or last start acting strangely you often want to step back in time to when things were running better. But who wants to restore a system from backup tapes. if you even have them? With the \$49.95

Instant DR from LightNet Inc. in New York, you don't have to. It makes a sector copy of your drive and "hibernates it in a hidden partition," according to company president David Kricheff. You can schedule the backup to the partition whenever you choose. Right now it can take about 10 minutes says Kricheff If that seems slow, wait until January, when a new version promises to cut that to two and a half minutes - barely enough time to nour, let alone drink, a cup of coffee. # Speaking of backups, for you parents out there who occasionally have childcare problems - you know. Branny gets a virus or the nanny starts acting strangely -Boston-based Children First Inc. uffers backup childrore for businesses Currently parents can register their little ones online, and beginning next year the company will let you so to its Web site to

reserve a slot so you can drop the kids off in a pinch. Pity it's limited to 20 days per year per employee, otherwise you could fire the nanny and give Graney a break. O 43005

PeopleSoft Expands Hosted Apps Lineup

PeopleSoft Inc. last week added the business applications developed by 1D Edwards & Co. to its line of hosted software and said it's nonoffering users three levels of

botting services Pleasanton, Calif.-based PeopleSoft, which bought LD Edwards in August, will offer that company's flagship midmarket applications as well as its AS/400-only green-screen software in bosted formats. LD Edwards hadn't manused its software for users since it

shout three wars was accord. ing to PeopleSoft officials. The tiered hosting services announced by PeopleSoft include different levels of guaranteed system uptime, techni-

cal support levels and enduser maximums. For example, the entry-level "value" offering provides 99.5% availability for up to 100 concurrent users, the company said. An "enhanced" service has

the same uptime guarantee but can handle up to 300 concurrent users and offers expanded hours of operation for software customization work

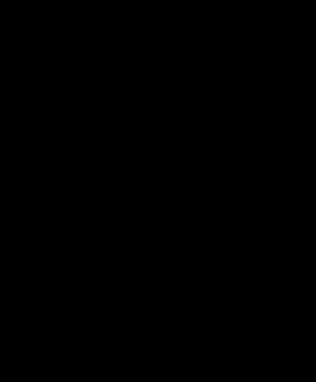
and other support functions. PeopleSoft said the bighend "ultimate" offering provides 99.9% availability and roundthe-clock support for as many as 500 concurrent mers Hosting customers also now can keep their software inhouse and let PeopleSoft's

technicians manuse the applications remotely However, the new hosting tain Coffee Roasters Inc. in

capabilities failed to win over Jim Prevo, CIO at Green Moun-Waterbury, Vt. "I'm not a fan of hosted applications of any sort," he said.

Hosting might make sense for some companies that want a fact implementation or are looking to simplify the Installation of software uperades and patches, Prevo said. But he added that he thinks running applications in-house would be less expensive and provide faster and more reliable performance In addition, staying in-house

climinates any fears that a hosting company will go nut uf business or jack up its prices when contracts run out. Prevo said. "I like to eliminate areas of risk when it comes to keep ing my applications up 24 by 7, week in and week out," he noted, O 43040



Furnnean Panel Probes Oracle Bid

The European Commission and it has begun an in-depth eval of Oracle Corp.'s hootile takens Soft inc. ofter se initial probe showed that the prosed combination "morits furects to spend four months g at the potential impact of

PeopleSoft Extends User Refund Offer

in other news related to Oracle's taknover bid, PeopleSoft said it has extended through Dec. 31 a program under which it's promis ing to pay users up to five times the cost of new software licer If an acquisition takes place are the products they buy are disco nition takes place and inued. Oracio has asked a Delaware court to invalidate the socalled customer assurance pro-gram [QuickLink 429451

Sun Buys Maker Of Identity Tools

Son Microsystems Inc. said It plans to buy Waveset Technolo ntity menager ment software. cash. Sun, which expects to com-plete the deal next menth, will inlegrate Wavesot's tooks with its

Short Takes

WORLDCOM INC., which now does ness as MCI, said it has sig work services deal with the state of Virginia that has a potential value of \$250 million over 10 years. . . . 3COM CORP. and WEI TECHNOLOGIES CO. ched a Hore Kong-based ting joint venture after recei ing approval from China's gove nt.... The U.S. POSTAL SER-ACE is dropping an ordina bill-pa

MARK HALL ON THE MARK

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to reboot every time you add one. The Java tools will also be improved. Those

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Hosting might make sense for some companies that want a fast implementation or are looking to simplify the installation of software upgrades and patches, Prevo said, But he added that he thinks running applications in-house would be less expensive and provide faster and more reli-

able performance. In addition, staying in-house eliminates any fears that a hosting company will go out of business or jack up its prices when contracts run out, Prevo said. "I like to eliminate areas of risk when it comes to keeping my applications up 24 by 7, week in and week out," he

noted. © 43040



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Siemens Scales Up IP Telephony System

Adds dynamic rerouting capability

BY MATT HAMBLES TEMENS AG'S U.S.-based networking subsidiary this week will announce an upwrade of its IP relephony system that can be scaled up to SUPPORT 95 many 98 MORE ON INF

100,000 end users on a single network C QuickLink k1200

the HiPath 4000 Real Time IP System will also support up to 12,000 IP phones on one of the specialized Unix servers that run the technology, three times more than the initial release that became available in April, said Ralph Riley, national manager of HiPath at Siemens Information and

Communication Networks Inc. in Boca Raton, Flo The new version also adds improved network resiliency features including the ability to dynamically reroute IP calls if problems occur. Riley said.

The HiPath technology works with both IP phones and circuit/switched Time Division Multiplexing (TDM) equipment, meaning IP calls can be routed over the public telephone network if need be

The promised resiliency capublisher in Massion 7.0 leaves est Elwyn Hull, director of

University of Texas Southwestern Medical Center at Dallas. The teaching hospital has been making a slow migration to a \$2 million HiPath system that it started implementing last year to replace a IOyear-old TDM technology. Hall said about 500 years one

on the HiPath sesplans to ungrade to Version 20 when it's released in April Corrently petwork failures

leave IP users without phone service. But adding Siemens' new IP Access Point 3700 devices at remote sites means the phones would 'not be left stupid" because of an outage elsewhere in the network, he said. Two years ago, before he

Avaya Inc. and Nortel Net-10 Gigabit Ethernet network throughout its campus before completely trusting IP in all locations. "There's been a loc a bit more difficult and more costly for everybody than

planned," Hull said Sirmens is also announcing an OptiPoint 410 family of IF phones which Hull said he will test with about 100 users at first. The phones deliver better sound quality than conventional devices through 7-KHz wide-

ogy. Hull also evaluated a pure IP system from Cisco Systems Inc. and IP/TDM hybrids from works Ltd. He said the medical cepter is building a redundant of hype about IP, and it's quite

band voice transmission, which is expected to make it easier to use the phones with voice-

SRC Offers Hosted VolP Service

week announced a horized voice Contract that starts at \$29

per phone on a monthly busic The VoIP service is available row in 18 U.S. cities, including Chicago and Los Angeles, SBC by year's end will add \$5 more ons, among them New York, Philadelphia and Boston, and it plans to offer the WelP or pebilities in about 100 cities hin the next 12 months, said name Gedeon, director of voice and data convergence Sen Antonio-based SBC

nich operates primarily in 13 on services throughout

The \$29 monthly fee covers of cells that individual users

recognition systems already in place at the medical center. Ken Landoline, an analyst at Robert Frances Group Inc. in Westport, Conn., said Siemens

plications "We had the dilem-

application if it was needed by

said. "And users didn't want to

ma where we'd only do a new

100 users, or it would fluwe

tol run locally on a PC " he

use PCs. frankly*

ad across the public triania em SRC also and firmy Kagan, an in

ond Com

has been third behind Ayaya and Nortel in the traditional phone market in the US but is making beadway with hybrid

IP/TDM systems O 43007 application installations take Lackey basn't done any forplace with virtualization. Prior to using SoftGrid. ABM was forced to preserve server space by being very selective about adding new an-

culations but said the savings vielded by removing 10 servers is "well above the cost of the SoftGrid software." The starting price for SoftGrid is \$15,000, Softricity officials said. Fidelity National Financial

Inc. has reduced 13 looked server farms to one by using SoftGrid 2.05 and 3.0 said Paul Little, a configuration manager at the title insurance company in Jacksonville, Fla. SoftGrid allows different versions of an in-house commercial loan application to run side by side. he said, adding that "you can offlood the processing and have the application centrally

managed." Dan Kuspetzky, an analyst at market research firm IDC, said Softricity is probably the largest of three vendors that take similar approaches to application virtualization. The other two are AnnStream Inc. in Palo Alto, Calif., and Leostream Corp. in Burling-

ton, Mass. O 43017

We had the where we'd only do a new application if it was needed by 100 users, or it

would [have to] run locally on a PC. And users didn't want to use PCs. frankly.

ANTHONY LACKEY CTO ASM INDUSTRIES

Softricity Ships New Virtualization Software

Softricity Inc. last week so.

nounced the general availability of SoftGrid 3.0 virtualization software that will centrally manage applications for use on laptops, desktops and

The new version includes support for the SoftGrid Management .Net Web Service and Microsoft Corp.'s Active Directory. The Web service enables integration of SoftGrid with third-party management tools such as the Microsoft ment Console and Mi crosoft Systems Management Server said David Greechler vice president of corporate marketing and co-founder of

Boston-based Softricity. SoftGrid deploys applications via proprietary software running on a SoftGrid Virtual Application Server, allowing

being installed on the host computer, he said. Small nortions of code are delivered in real time as needed to client machines such as decktons laptops and Citrix Systems Inc. servers or Microsoft Terminal Anthony Lackey, chief tech-

nical officer at property ser-vices provider ABM Industries Inc. in San Francisco, said he has been using SoftGrid for five months and plans to upgrade to Version 3.0 to manage 3,000 Citrix thin clients. "We effectively operate as a corporate application service provider, delivering something

north of 60 applications to thin clients" he sold Installing SoftGrid 2.05 reduced the number of servers needed at ABM from 90 to 75. Lackey said, because fewer

3 SERVERS ARE ABOUT TO GO DOWN

UNE OF THEM WILL LOSE 200



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SAP Ties Anns to Sybase Databases

SAP A6 announced plans to add nort for Swhase line 's databases to its business applications for small and midnize uppers. The SAP Business One seltware which became available in the 37371), is currently limited to Microsoft Corp.'s SOL Server asa. SAP said the applicams should be integrated with fease's Adaptive Server Enter

prise technology by May. HP Shows Increase In Sales, Profits

Hewlett-Packard Co. reported year-over-year increases in revence and profits for its fourth arter, which ended Oct, 31. HP's enterprise systems unit returned to erolitability nutting all its operations in the black. CEO Carly Fiorina said she has "never en more confident in HP's com-



Reseller PC Connection Inc. said the U.S. General Services Administration canceled a centract with its government sales unit after a review showed that the company may have sold unqualified products or underpaid fees to the GSA, Merrimack, N.H.-hassel PC nnection placed the CEO of its Connection Inc. unit on a leave of absence and has launched an

internal review of the matter. Short Takes

GATEWAY INC. said it will sell and support SUSE LINUX AO's version of Linux on its corporate serve

... ELECTRONIC DATA SYSTEMS CORP, has combined its busine ess outsourcing operations into a single unit and hired an executive from outside the company to run the new division.

BRIEFS Cisco, Antivirus Vendors Team Up on Client Security

Technology will ensure admission control and security policy compliance

BY JAIKUMAR VIJAYAN SCO SYSTEMS Inc.'s

new Network Admission Control prod gram Jasanched Jast week with support from three security vendors, is designed to help companies address the threats posed to their networks by improperly secured systems belonging to remote and mobile workers

But users will have to wait usell the middle of next year for the functionality to become fully available on Ciscu's access and midrange routers. Cisco, along with Symantec Corp. Network Associates Inc and Trend Micro Inc. is developing technology that it says will help companies block network access to PCs.

servers and other devices that areo't compliant with corporate security policies. "We see it as a very positive step," said Edward Gotthelf. manager of network architecture in the Mahwah, N.L. data center of United Parcel Scrvice for "This whole industry

has been bounded by new viruses, and basically there's a very limited amount of time to tract." What we're talking about here is a very broad program.

to address admission control and compliance across the network," said David Kine director of business develop

With it, companies will be able to ensure that client sys. tems have all of the required patches, antivirus software. firewalls and security settings that are mandated by policy. said Lily De Los Rios, vace president of product delivery

Systems that aren't compliant can be either blocked from network access or safely ourse. antined until remedial action is taken said Steve Chang CEO of Trend Micro

The idea is to create a sort of "airlock" where remote systems are checked and valudated for compliance, said Pete Lindstrom, an analyst at Malvern, Pa -based Spire Security LLC

Such measures are enicial such as non-books and hand helds are being turneted and agation Lindstrom said In hile workers reinfected al-

at a time when client devices used for worm and virus propmany cases infected DCs that belonged to remote and moready-cleaned networks dur-

Secure Route

ing the recent Bloster streets The Network Admission Control program uses a Cisco Trust Agent that's installed oo each client system to collect information about the device's cocurity status. This informs tion is then used by Cisco. muters to decide whether the system is in compliance with a nership with the antivirus vendors will ensure that the latest virus signatures are always available when access control decisions are made company officials said. Cisco isn't the first worder to attempt to address endpoint security issues with such technologies Fremont Calif. based Syrute Technologies Inc. Mountain View Calif. based InfoExpress Inc. and San Francisco-based personal firewall vendor Zone Labs Inc.

also sell products for enforceing security on remote systems. O 43027 LEARN MORE ONLINE For additional information and resources yest our Security Knowledge Center

QuickLink \$1200

Cisco Upgrades Storage Switches, Adds SAN Routing

Cloco last week said it has upgraded the softwere on its multiprotocol storage switches address leatures such as Ficon connec tivity for mainframe users and support for routing data between

Casco said as MOS 9000 switches can now handle what it called "inter VSAN routing." which lets servers on different virtual SANs share disk arrays and tane libraries. The virtual

SAMs would remain seconate from one another, but usees would be able to transfer some data traffic between SANs with out combining them into a single logical fabric, Cisco said

The company added that the uppraded switches will also be able to use the Fibre Channelover-IP (FCIP) protocol to do long-distance data replication to remote SANs for disaster recov-

IDC analyst Rick Villars said the new capabilities being offerred by Cisco are significant in SAN-OS 1.3 software include a that they re embedded in the server-based version of Cisco's MOS 9000 line's software in-Fabric Manager network manstead of requiring users to install agement look first gives users senarate processing morbiles central control of multiple SANs like they have to do with some

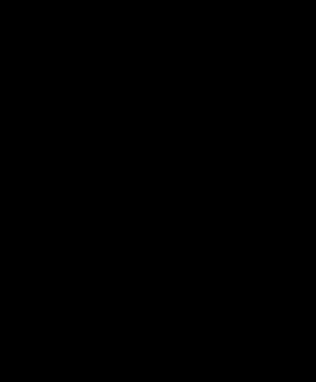
rivel switch moducts Priority Traffic

Rainey Rhombani product monager for the MDS 9000 line, said Disco has also not musto-ofservice controls in its switches That allows storage menegers to prioritize SAN traffic based on specific business maurements such as cutton transacfron-processing database traffic

Although quality-of-service policies are starting to take hold among storage managers, that capability will require cooperation between Cisco and windows of host bus adapters and Fibre Channel adapters in order to work property, Villars said. Other new features in the

plus support for standards such as the Common Information Model storage management in terface and the internet Storage Name Service protocol. in addition. Gisco said the software upgrade adds support for informating open swell pentocols like Filter Channel ISCSI and FCIP with IBM's Ficor mainframe connectivity and control und port management tech-

nologies on the same switch through the use of virtual SANs The new software is due for release within 60 days and will be available through disk array wordors such as FMC Com Hewlett-Packard Co., IBM and Hitachi Data Systems Corp. which resell Cison's switches and rival devices.



SAP Ties Anns to Sybase Databases

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se technology by Max. HP Shows Increase In Sales, Profits

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4 FV02 \$18.058 5390M

GSA Drons Deal With IT Reseller

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Such measures are enicial at a time when client devices such as notebooks and handhelds are being targeted and used for worm and virus propagation, Lindstrom said. In many cases, infected PCs that belonged to remote and unobile workers reinfected already-cleaned networks dur-

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to attempt to address endo security issues with such techpologies, Fremont, Calif. based Sygate Technologies Inc. Mountain View Califhosed InfoExpress Inc. and San Franciscoubssed nessonal firewall vendor Zone Labs Inc. also sell products for enforcine security on remote systems. O 43027

LEADH MORE ONLINE

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Priority Traffic Raisey Rhartest o

Rajeev Bhardwej, product men-ager for the MDS 9000 line, said Cisco has also put quality-of-service controls in its switches That allows storage menagers to prioritize SAM traffic based on specific business requirements, such as putting trans tion-processing database to alread of backups.

among storage managers, that capability will require coopera-

SAN-OS 1.3 software include a ment tool that give trail control of mus

SCS and FOP with RM's F through the same switch through the use of whale SAMs. The new software is due for release within 60 days and will be available through dais array vendors such as EMC Corp. Hawlest Packard Co., EM and Hitachi Data Systems Corp.



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point, viruses, and malicious behavior can all threaten your security. That's why Trend Micro, the global leader at the gatewer, mated interforal Messaging Security Suits 5.2—a con-discriptivity of the conditions of the security of the conditions antivirus, content filtering, and anti-Spam applications in one easy-to-manage, scalable solution.

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Ken Pasley director of wire-

less systems development at

AT&T Wireless Ratchets Up Cellular Data Network Rates

Upgrades nationwide service, says CRM problems are being addressed

TAT WIRELESS Services Inc. last week launched an uperade of its highspeed cellular network that's focused on corporate applications and designed to provide mobile users with average

data transmission rates of up to 130Kbit/sec That's more than four times faster than the top speed of about 30Kbit/sec, that AT&T Wireless' current GSM/GPRS network delivers. The beefedup network uses the same spectrum as the existing one and can be accessed nation wide as well as in Puerto Rico and Bermuds, the company said here at the Comdex/Fall 2003 show

The launch of the EDGE network, a name that's derived from the phrase "enhanced data rates for GSM evolution." came one week after Redmond, Wash-based AT&T Wireless disclosed that a faulty CRM system upgrade had caused major delays in activating cell phones for new GSM/GPRS customers [Quick! ink 42831]

AT&T Wireless last week said in a statement that it had 'made good progress in addressing the initial challenges with the start-up" of the upgraded CRM system, Daily activations of cell phones and calling services were at "nearnormal levels," it added.

AT&T Wireless' new network isn't the fastest one to be announced in the U.S. Verizon Wireless last month launched in Washington and San Diego a cellular service that's based on Code Division Multiple Access technology and supports average data rates between 300K and 500Kbit/sec And in June, Cingular Wire-

less introduced an EDGE service in Indianapolis. But AT&T Wireless said that its network serves geographic areas with a total population of 215 million. The company added that it will deplay the EDGE technology throughout the Caribbean soon and offer the high-speed service across Canada early

FedEx Corn., said the Memphis-based package carrier doesn't have any immediate need for the kind of data rates that are being promised by AT&T Wireless

FordFy uses AT&T Wireless' existing GSM/GPRS service to rent bandwidth is enough. Bur Pesley added that he

connect its drivers' handheld computers to corporate systems, and Pasley said the curlikes the fact that the higher

the prices of PC cards and

Wireless Internet & Mobile Computing. But users need to evaluate coverage areas and data phones in addition to throughput before signing any deals, Reiter said. © 43036

company's group product

manager for the technology

strade will make it easier for

users to input text and anno-

said. It will also provide "con-

tate PowerPoint slides, she

text sensitivity" capabilities

for translating written words

into data. Cameron added that

Microsoft expects future note-

book PCs to include built-in

leffrey Hodes, co-executive

producer of the ABC televi-

tablet functionality.

The operating system up-

SedEx room to grow on new applications it develops. That potentially "unencumbers my

future " he raid AT&T Wireless has *raised snother har" in the cellular data services market, said Alan Reiter an analyst or Chevy Chase, Md.-based

d in areas along more th 90,000 miles of majo

> writers use tablet PCs made by Motion Computing to digitally appotate scripts during daily rehearsals and ranines The appotations are transmitted to all 14 writers via a WLAN, said Hodes, who also

is one of the writers. The technology streamlines the process of producing each day's final script and has helped reduce the use of paper by the show, which previously consumed about 180,000 pages

per year. Hodes said. John Harrington, director of integrated manufacturing systerns at General Dynamics Corn's Electric Boat division in Falls Church, Va., said the maker of nuclear-powered submarines has deployed

tablet PCs made by Fujitsu Ltd. to make it easier for its design engineers to modify computeraided design drawings during the construction process Engineers use a WLAN to

pull CAD drawines to the tablet devices, Harrington said. They can then compare the drawings against the construction work in progress. annotate any changes in a text format and send the drawing files back to Electric Boar's CAD system - a time-saving ocess that wasn't possible before the advent of tablet PCs, according to Harrington

next year through an existing venture with Rosers Commu-Continued from nove I Tablet PCs

connections from Motion Computing Inc. HealthSouth CIO Randy Camenter last week said the tablet devices will be used by physical therapists at the company's L400 physical rehabilitation centers. The application software numing on the systems will give therapists access to patient records and ler them document clinical progress. Carpenter said. adding that the wireless links will enable the therapists to be "com-

tient's side." However, tablet PC sales aren't a big business yet. Firstyear shipments of tablet hardware totaled about 420,000 units, according to Framingham. Mass.-based market research firm IDC. That's just a blip compared with sales of handheld computers, which amount to more on a monthly basis than the yearly figure for tablet PCs, said IDC analyst

pletely mobile and at the pa-

Scott Eckert, CEO of Austinbased Motion Computing, said that persuading IT managers to buy a relatively unproven technology such as tablet PCs requires a lot of time and effort by hardware vendors.

Alex Slawsby

Sales prospects are spending up to six months evaluating the devices Eckert said Another factor working against tabler PCs is a price

premium of about \$150 over notebook PCs, said Sam Bhaynani, an analyst at ARS Inc. in La Jolla, Calif. That quickly adds up to "rest money" for companies that want to buy thousands of devices, he noted. Current prices listed by key tablet PC vendors range

from \$1,699 to \$2,739 per unit. Microsoft officials remain confident that tablet PCs will become mass-market products, said Susan Cameron, the



On the EDGE

A high-speed network that stor. The same spectrum as

ATAT Wireless' existing M/OPRS service but is r than four times factor.

WHAT IT COSTS: ----ry pricing for laptop its ranges from \$29.99 for ng up to 10MS of data to \$79.89 for unlimited

WHERE IT'S AVAILABLE: to the U.S., where the EDGE service can be accessed in about 6,500 cities and tow

>5:05 am. Custom configuration expert Henry Young trains for the mother of all last minute orders.



SSA Moves to Upgrade Baan's Old ERP Apps

New owner will add Web user interface to aging but popular Baan IV line

av MARC L. BOMBONE

S. GLOBAL Technologies Inc. Iast week said
it will add a Web-based
user interface and other new features to the existing
versions of its Baan ERP applications, reversing a decision
by Baan's previous owner to
end development of those

products. Chicago-based SSA, which took control of the former Baan Co. in July, also committed to pushing ahead with development work on a delayed Baan ERP 6 upgrade that's due in July. But that will be preceded by the planned first-quarter shipment of enhanced Baan IV and Baan ERP 5 releases the

and Baan ERP 5 releases, the company said. About 70% of Baan's 6,000 users still run the aging Baan IV software, and the revised development stratesy could enable them to continue avoiding application upgrades. Cory Eaves, vice president of solutions management and research at SSA, said the upcoming enhancemeos will give users a gradual migratioo

path to Baan ERP 6.
"Our approach is to put out
the carrot and not the stick,"
he said. "If the customer sees
value in (Baan) ERP 6 and an

This is very good news ... the fact that they're supporting and offering new functionality for

previous versions.

easy migration path, they'll choose to upgrade. We want that choice to be theirs, not

 SSAs plan to rejuvenate the current applications got a big thumbs up from Keith Bearden, GIO at A-dec Inc., a Newberg, Ore-based maker of dental equipment that uses

Baan IV.
"This is very good news, not
necessarily the browser interface itself, but the fact that
they're supporting and offering new functionality for pre-

ting new functionality for previous versitions." Bearden said. Bearden, who wants to wait at least a couple of years before upgrading to Baan ERP 6, said be plans to add the Webbased user interface to A-dec's system after it becomes available. He noted that Mike Greenough, SSA's president,

system after it becomes available. He noted that Mile Greenough, SSA's president, chairman and CEO, said in September that the company will over "sunset" a product — a promise Bearden called "the best news I've beard from

FUIDRE SOFTWARE

Baan in ages."

The two investment firms that jointy own SAA bought Barnavold. Nethertands-based Bana from Invensys PLC last summer and made it a subsidiary of SSA. Bana ERP 6, which is code-named Gemini, was originally due for release in September. But at its annual suer conference that month, SSA said it was delaying the rollout until next year in order to ensure that the opgrade

to ensure that the opgrade would be "a solid product" [QuickLink 40599]. Baan ERP 5 already supports Web-based application screens. The thin-client interBazo IV will provide users with full read /write and transaction-processing capabilities plus improved support for remote access, according to SSA. In addition customers using Boon IV or Boon EDD 5 will be able to integrate those applicarions with other products in SSA's software portfolio to handle tasks such as olver maintenance and warehouse management, Faves said. SSA's new plan is a practical move that should help ease the upgrade process for users. said John Moore, an analyst at ARC Advisory Group Inc. in Dedham, Mass. In the past. Baan often moved too fast for customers by releasing software with questionable upgrade paths, Moore said. The Web-based interface will make it easier for Baan IV

face that's being added to

partners, Moore added. "For many, that's enough for now," he said. © 43039 ERP GALORE

But more information at the ERP(Supply Drain Knowledge Center on our Web star Outside Into \$2000

users to share information in-

ternally and with business

delity National's Fidelity Information Services unit. Fidelity National's exist Corebank retail banking softwere which is written in Cobol and runs on IBM's zSeries mainframes, is beim extended to support JZEE as well as IRM's Unit and Windows servers. The two componies last week announced the release of the IZEE-based software in lange and said the technology would be come cially available in the U.S. within 12 to 18 months As part of its deal with IBM. i-Flex plans to ship a J2EEbased version of its FlexCube for Retail Banking software in

next year's third quarter. The

release will also run on IRM's

full line of servers, expanding

beyond the support for IRM's

Unix systems that's built into

the current version of Flex-

Cube O 43037

two companies said the new

Bank Apps

enough Cobol programmers to maintain its existing over systems. Replacing the applications with new ones would cost the bank hundreds of millions of dollars, he estimated. RBC began using Web-Sphere to tie together some from-end and back-office banking applications two and

a half years ago, Teja said.
For example, the bank has
Web-mabled its mortgage
leading system and rolled out
an odsine check-imaging service that sucs WebSphere to
provide links to transaction
records stored on mainframes
and retrieve electronic images
from a third-party company

that stores them for RBC.
"I think over time we would
want to [change our core systems] if we could afford to." Teja said. He noted that an integrated set of applications could make RBC more respon sive to customers. But a project of that magnistude "is a huge undertaking that will take three to five years and [require] a lot of bank reengineering," he said. On the other

hand, it's costiy to keep Cobol-based applications running. Gartner Inc. estimates that between 60% and 80% of a project

80% of a typical U.S. bank's IT budget is spent on maintaining mainframe systems.

In addition, the systems that support separate lines of business within banks often can't communicate with one another, even if customer data is consolidated into central files. To provide increased crossselling opportunities, the

stovepiped applications "need to converge into one instegraed system," said Gartner analyst Avivah Litan. "But right now, unless you have millions and millions of dollars to spend, you just patch your way around it."

By taking advantage of Java 2 Enterprise EdiEWS 2 Enterprise Edi2 Enterprise Edi

ucts in weeks or months instead of years, reducing both development costs, and time to market, said Bob Hunt, an analyst at Tower-

Group in Needham, Mass. In a report released this month, Bostoo-based research firm Celent Communications LLC called the replacement of core banking systems "by far the most costly and risky projIt predicted that worldwide spending on new core systems will reach \$80.2 billion within two years. Development Plans IBM list week announced a

IBM last week announced a joint software development and sales deal with i-Flex Solutions Inc. in Bangalore, india. That followed on the heek of an alliance that it detailed with Jacksonville. Flabased Fidelity National Financial Inc. on Oct. 22.

Initially, IBM and Fidelity National plan to target banks in Japan for Fidelity National! IZEE-based technology, since they view Japanese financial institutions as needing new core systems even more than U.S. ones do. "The Japanese IT teams tell us they don't bave any Cobol programmers," said Jim Wilson, president of the international division at Fininternational division at FinFaster than Verizon.
Faster than Sprint PCS.
Faster than Cingular.
Faster than T-Mobile.
Faster than Nextel.

Introducing the national wireless Ever.
Only from AT&T





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Open e-mail attachments at Download large documen éverage speeds of 100-130 Kbps presentations and reports and bursts of up to 200 Kbps. In just seconds. Faster data speeds from mo places in the U.S. than with any other writiess carrier

fastest data network.

Wireless.

High-speed wireless is finally here. So you can do more there.

Only ATAT Whreless with EDGE technology (week you the power for work on the national weeks data network that's nearly two cases data as ny other in fact, with average peeds of 100-190 Kipps and bursts of lyp to 200 Kipps, you can browne the Internet, as well as whomical presentations, documents and persealchers, with secure weeks access, convicional presentations, and presentations, and the secure weeks access, leading 17 companies so we can hely you get more out of the technology you use nearly day 70 pet your data morning, call 1980 EATA, 256 or pot a territories confidence.





MARYFRAN IOHNSON

Customers in Control

ONY SCOTT has been coming to Comdex for 15 years, although as the chief technology officer at General Motors he could clearly delegate the task. He still makes the annual trek to Las Vegas because the legendary trade show, even on its deathbed, gives him "a snapshot of what's really being adopted" by other technology buyers.

This year be noticed not only the waning fortunes of Comdey and the dearth of significant IT vendors on the show floor, but also a product emphasis on "wireless everywhere, security everywhere "GM has lone been an early mover in new technologies. Scott noted, from digital identity to Web services and wireless.

The one thing I really lose sleep over is security, thinking about the possibility of a Day Zero event - a unique worm or virus with a damaging payload," the CTO said, "I'm talking to various companies about bow to detect those anomalous events."

Jeff Campbell, CIO at Burlington Northern and Santa Fe Railway. made the trip from Fort Worth. Toyes as a first-time attendes and sneaker on one of the conference nanels. He came into the top techpology job only 13 months are from the business side of the \$9.4 hillion railroad. BNSF moves one-fourth of the nation's rail freight across 28 states and two Canadian provinces (including enough grain to supply 900 million people with bread for a year) and considers itself an industry leader in Web-enabling a variety

of customer transactions. Campbell's focus at Comdex also centered on wireless and security products. All of the most promising emerging technologies that will have an impact on the railroad's future are related to networking or wireless: GPS, broadband and wide-area wireless networks. RFID ragging and Volta But beyond the momentum behind an unmistakable "mobility with security" trend both men also noted the dramatically shifting equilibrium of power in the computer in-

dustry Vendors are no longer calling the shots or even controlling the direction on technology. For the first time, customers and consumers are in control of where technology is going.

*I'm seeing a lot less of the technology vendors pushing this or that It's more the voice of the customer now," Scott said.

"It's a buyer's market," Campbell said, adding that the most compelling trends are being driven by the demand for ever-more-mobile data

access, the growth of broadband and increasingly smarter phones converging with handheld devices. "The challenge of the CIO in the

future is to handle this proliferation of mobility and to ensure the security of the enterprise" said Campbell Even in the federal government. where technology leadership lags other industries by years, customers are changing the rules and demandine performance-based software contracts with more risk shared by vendors ["Legislation to Alter Federal IT Services Procurement." Quick-

Link 428321 Nicholas Carr author of the infamous Harvard Rusiness Review articie "IT Doesn't Matter," was also at Comdex, speaking on one of the panels and reiterating his contrarian views about the commoditization of IT. Carr. too, has spotted the power shift from vendors to coosumers. "IT wants to be shared," he said, "Technological, competitive and economic forces are pushing IT to become part of the broad business infrastructure. It's a very good thing."

The power shift from vendors to customers is undeniable. This is the time to sit with your key vendors and oot just ask for changes in their products. Demand them. You're in the driver's seat, so drive. O 42998

DIMM FOX Let's Talk (About Speech Recognition)

THE LINK between speech recognition and applications is tenuous. But the advent of speech application language tags (SALT) and Web services could create a better relerionship.

John Cootz, a voice-recognition expert in the insurance industry, said one reason to expand from an automated telephone system is time efficiency. Customers simply want to be able to quickly do things like increase a deductible

Gettine there has been difficult. But new tools may bring some hope According to Cootz, using Web services with SALT, which is HTML-like code that lets you tar an existing application and link it to a speech-recognition program, can help make efficient connections to the speech system. There's no complex interface with the back end. Instead, only data is transferred And with Web services all the call data can be cached and flushed when the session ends

Such an arrangement also lets you focus on a design around the customer benefit rather than application interration, "Speech is different than touchtone," says Cootz. "There's a perception

of buman interaction.

so you have to ask. Does this provide a real customer benefit The speech-recog-

nition work at Dallas-based Mary Kay Inc. is taking a similar approach. Karen Calvert, vice president of the cosmetics company's IT group, says Mary Kay makes personal attention a hallmark of all its communications with its 700,000 independent sales reps. The company defined the benefit in terms of being able to have someone call and say, "His. I'm interested in talking to someone about my last order." A speech-recog nition system like the one Mary Kay is building with Intervoice Inc., also in Dallas, makes it possible to market different levels of service and to define



cutoffs to move callers to a live person or enecific belo The thing you have to remember

about speech is its flexibility," says Cootz. "You are going to want to test and tune your system based on focus groups. They'll show you where the obstacles are, and you can then plan your

system to deal with the problems. Another issue is benchmarking. For any speech system to be successful you have to measure results against industry benchmarks as well as internal systems such as automated touch-tone telephone systems. But remember

speech isn't an overlay of touch-tone. so benchmarking may be cumbersome. Finally, there are internal business expectations. Pinpoint the return on investment, the effect on expenses, the change to service offerings and the re-

lationships to existing telephone services. These must be arriculated After all that's the essence of effective speech. O 42865

And e-entrepreneurs face the prospect of dealing not iner with 45 states, but also with more than 7,500 overlapping and multilavered U.S. tax jurisdictions. That

would be crippling. Business might been for usedow of tax compliance software but their opportunity would come from the creation of a compliance nightmare, even for the best-intentioned

Big boys like Walmart.com and ToysRUs.com have voluntarily agreed to start collecting sales taxes nationwide to avoid legal challenges. But what about the majority of e-retailers Simply put, the economic proposition for consumers to shop online would be fundamentally changed, because the



says Ed Foy, CEO of eFashionConsulting "we've talking about lavoffs. And the bottom line is that ulrimately means less tay mon ex going to the states and no one - not the sovernment the consumer or

hariner - wies That's reason enough for Concress to stop debatine how long to extend the moratorium Instead, it should enact a permanent

This is a buttle with huge ramifications for the future growth of e-commerce and, indeed, the American econ omy. If the Internet is seen as a tax panaces for states struggling with their budgets, the idea could spread second the world. And because Americans show particular e-innovativeness, 115. e-entrepreneurs will bear a dispropor-

tionate share of taxation.

We should thus heed the call of Commerce Secretary Don Evans, who said. 'The Interpet is an innovative force that opens vast potential economic and social benefits of e-commerce," when he testified before Congress recently "Government should not stifle e-commerce through multiple or discriminatory taxes." Evans warned O 42883

WANT OUR OPINION?

More coherentsis and links to archives of previous columns are on our Web site:

DAVID C. WYLD Don't Shoot The Internet

VER THE PAST FEW weeks, every e-commerce entrepreneur and Internet innovator has been watching the congressional debate on whether we should lift the moratorium on Internet sales taxes This question is as appropriate as ask-ing, "Other than that, Mrs. Lincoln how was the play?" That's because the gains in tax collections (albeit in the billions) will never offset the cost to

novation. It's that simple. This time, the pressure to tax Internet sales isn't coming from traditional brick-and-morter retailers. Now we're bumping up against state governments drowning in massive budget deficits. Of the 45 states that have retail sales taxes, 42 are participants in what is known as the Streamlined Sales Tax Project, This National Governors Association project is seeking to stapdardize sales tax laws to make them e-commerce-ready. The clear message to all online retailers. Watch out, we're

e-commerce entrepreneurship and in-

ng after you. Under current federal law, an Internet merchant must charge applicable sales taxes only for shipments to states where the seller has a physical presence.

READERS' LETTERS Some Technologies Aren't Sinking So Fast

A MONO THE TECHNOLOGIES seen as sinking in the article Submerging Technologies: Five That Are Sirking Fest "(Queld into ATTROTURE PAIG SNA I think those who work with SNA under stand that its existence denorsis upon applications written to com municate using SNA-architected protocols. As long as these applications do the job. SNA networks will exist. In addition, the architects of

SNA appear to understand the importance of TCPMP products and are moving SNA to integrate well with IP transports. One example is the new push for transmitting Synchronous Data Link Control frames. using User Datagram Protocol for SNA/Advanced Peer-to-Peer Net working, Another is IBM shipping maintracnes with Gloabit Ether cards colimized to run only IP test-

for There is also SNA Switching Services, sometimes referred to as CHA ID Both IBM and Cisco are pust roducts arred at replacing IBM's 3735 communications controllers, it

plans very well in an all-PLAN/WWN Ed Rabara Dublin Colif

REED WITH MOST things in the article, but when it came to the death of tage, I had to snicker venty-five years ago, when I startn this business, Storage Tech-

nations Com was in its infancy and it grew by leeps and bounds as IBM conduct been a dead technology. Today, Storage Tek is a \$4 billion company, and there are more time companies than ever before. While the storage technologies mentioned in the article all have their place. I don't believe tape will be disappearing anytime soon. Ray O'Connail

S TAPE SHOOME? I think that's to tree off on project! Lighter those who are selling competing technologies. There will continue to be a place for it for many years to come. While disk storage for backup may work in certain situations. there's the problem of cetting the data off-site for security internet

Camarillo, Colif.

organizations that requirely create large amounts of data daily. The cost of Internet data backup is oro-MySQL's Strengths - and Weaknesses THE SPEED OF MYSQL, accord-Breaks Into the Data Center

Queld ink 417501, is due to its simplicity - one file for scheme you file for data, one file for index. This also reveals its weekness - no seconde transaction log, no separate rollback log, no file duplication. All your egas in one basket. For those for

hibitive unless was almosty have creater-than-TI access.

Director of IT MHTN Architects Inc., Salt Lake City

CLIENT/SERVER IS DEAD yet since the mid-90s. In your article on submeraing technologies. John Pursuan of Cap Bernini Ernst & Young says that "a lot of that softwere was built with second-own tion client/terver tools, like Se base's PowerBuilder and SOL Wodows," and that it's becoming hardor to lind people with those skills.

and to get the object code to run well an newer technology. This shows how current he stays. Power Builder supports Web services JSP YM att Acri Brown Builde object code ours great on the newest hardware (including appl backup isn't there yet, especially for cation servers). In these days of tight budgets and chellenging busness conditions. CEOs am looleno for technology that performs, not

> whom low cost and high-scood are more important than security, intearity, availability and recovery

MySQL index andd For those for whom it is not, a slower, more comples, safer DBMS is required. David P. Vernon Senior technical solution

specialist, IBM Life Sciences, Dorme Aris

retking funds on unproven and resky new technology. But consulting firms are always recommending that customers change to the

reversit and conjust technology They acoper to be living in a drawn of unlimited hands and the ability to constantly redesign applications

David Kaiser Vice president of information services, State Fund Munual

Cos., Bloomington, Minn. THE "SUBMERRONG Technolo-ges" article was quite good, but

a couple of "in" flems on the "Sinkers and Swimmers" list hour essues that weren't explained. Blade servers generate lots of heat, and them are mustaces about the iongraty of data on rewritable CDs and DVDs

Kan Aydiott Multimedia programmer/ana lyst, Countal Training Technotagies Corp., Virginia Brach COMPUTERWORLD exicores

comments from its readers. I ofture will be added for brevity and clarity They should be addressed to James Ecide, letters editor, Computerworld, PO Box 9171, 500 Old Connecticut Path, Framingham, Mass. 01701. Fax (506) 579-4843 E-mail: letters/Roomputerworld.com include an address and obone num

ber for immediate vertication. For more letters on these and other topics, go to

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AMD

The AMD Opteron' processor, superior 32-bit performance with expanded 64-bit capability, it's the only server processor designed to run your 32- and 64-bit applications simultaneously and without compromise. AMD Opteron runs on AMD64, a breakthrough architecture that enables 64-bit sechnology on the x86 platform-creating a new dass of composite.

The world's highest performing 2P and 4P industry standard servers are now powered by AMD Opteron processors. Get unparalleled 32-bit performance and the ability to transition seamlessly to 64-bit computing.



Leverage your existing investments while preparing for the future. It's one architecture across your enterprise that offers industry leading performance for your 23-bit applications, and doesn't require a forkilit upgrade as more 64-bit applications emerge. It's just another way AMD designs and builds processors with you in mind. For a closer look at the AMD Opseron processor, visit www.amd.com/opseron

TECHNOLOGY

04A Improved Security Through IT Diversity Security suru Brace Schneier talks showt wife-

ware liability issues, the risks of monolithic IT infrastructures and the dangers involved in relying too heavily oo technology as a panaceu for security problems. Page 28



omas Sandholm, a researcher and professor at Carpesie Mellon University has developed techniques using artificial intelligence to help make business-to-business online aucti more fair, flexible and powerful. Page 29

SECURITY MANAGER'S JOURNAL Security Policies? What Security Policies?

just six months after implementing a security awareness program in his company, Mathias Thurman finds that it has been completely ignored. Page 32

OW DO YOU INCREASE your odds of retaining imployees if you're in an astry plagued by revolving-door turnover? Convenience store giant 7-Fleven Inc 's strategy is to use technology to reward performance through incentive pay in its nearly 3,000 stores throughout

the U.S. Prior to deploying an employee incentive management (EIM) system from San Jose-based Callidus Software Inc., 7-Eleven mostly used spreadsheets for compensation management. But the system had so many limitations that it was impossible to offer incentives to many employees.

"We primarily gathered data and loaded it into Excel spreadsheets, but invariably there was a manual process in which an analyst had to take compensation data and merge it with other data to make our incentive systems work," says Terry Guth, director of orpanization effectiveness at the Dallasbased company. "We just couldn't handle paying incentives to large groups of employees with a manual system.

With the Callidus EIM system, 7-Eleven can provide incentive pay to its 28,000 store managers and hourly employees based not only on a store's financial performance, but also on oper ational factors such as store cleanliness, quality customer service and product assortment. "We've seen improvement in execu-

tioo in stores because of increased attention and because we can pay incentives based on that execution," says Guth. "It's had a positive impact on morale, and our turnover has been

down this mor" Numerous organizations are in the same situation. They need to offer variable pay based on individual or

corporate performance, but they find it difficult to do because they have to deal with large numbers of employees huse product portfolios and complex compensation plans with many variables. These challenges are generating increased interest in EIM and other compensation management systems.

Automating inceptive management doesn't just enable businesses to pay workers more accurately. It also makes companies more accountable, provides them better modeline and reporting so they can react to changing dynamics and helps them improve relationships with their employees. EIM is becoming a key component in larger compensation management initiatives, which in turn play instrumental roles in burgeoning corporate performance and

human capital management strategies "The focus for FIM is customer. facing roles that may have an impact on revenues," says Monica Barron, an analyst at Boston-based AMR Research Inc. Though initially used for sales force compensation, Barron says, EIM is also finding traction in call centers, in financial institutions for bank tellers involved in cross-selling and upselling, and in retail situations where employee compensation is tied to store productivity and profitability

"If I work for Pract & Whitney and sell one jet engine per year, it's not going to be tough to figure out a comm sion. But if I work in insurance or retail or consumer goods, where I'm selling hundreds of items in a week with different types of incentive plans, it's very difficult to calculate quickly enough to get payments out on time," Barron says. It was compensation-plan complexi-

PERFORMANCE

Incentive management software can help companies retain employees by making sure they're rewarded for meeting







ty that drove Amersham Biosciences. Corp. to abandon its spreadsheetbased system to outsource EIM to

Conshohocken, Pa.-based Synygy Inc. For 200 sales reps [for North Americal was have more then 20 sales incretive compensation plans " says Dan Eldridge, manager of business operations at Piscataway N.I.-based Amersham. With more than 6,000 products in the biotech couloment supplier's nortfolio "clearly we don't incentiving at the product level, but with numerour commensation plans often involving multiple credits, the process of accurately compensating is very com-

oley " he says Beyond the difficulties generated by the clans themselves, Amersham had problems with sales report accuracy and timeliness of incentive payments, says Eldridge, "It was such a manual process; for every plan participant, we had to basically create an Excel workbook. It would take us six to eight weeks to calculate the quarterly incentives, and once we paid the incentives. we would spend another two to four weeks dealing with corrections. So during a good quarter, we would spend 10 weeks doing incentives and two

weeks doing value-added work." This intensive effort limited Amersham to updating sales reps with progress reports on incentive works only once per quarter. With Synygy handling EIM. Amersham can quickly calculate variable pay, and reps can readily check reports via the Web-based Synyay Viewer Eldridge has been able to eliminate one compensation analyst

position, but more importantly, besays, "we've been able to distribute individual reconnechilities so that me department has become a value-added resource for the entire comeany

Suite Deployment

Though EIM offerings are attractive to companies struggling with variable pay plans the number of employers doploving them is still relatively small According to AMR, revenues for the EIM seament were \$112 million in 2002 and are expected to reach \$285 million by 2007. Homegrown systems still pemain the most stalwart competition to commercial FIM offerings. However many companies may eventually find the homegrown tools to be too inflexihle, and vendors are making strategic moves to be there when they do.

In addition to best-of-breed vendors such as Callidus, Incentive Systems Inc. and Syngey, ERP/CRM vendors are adding EIM capabilities through inpovation or acquisition. For example, Siebel Systems Inc. just bought Motiva, and Oracle Corp., SAP AG and People-Soft Inc. have added compensation capabilities to attract customers that

want to leverage integration with larger suite deployments One such company is Minneapolisbased Select Comfort Corp., a specialty bed and accessories manufacturer and petailer, which peted to leverage its suite of Oracle financial, manufacturine and human resource applications when it went looking for an EIM applicotion

"We basically had an archaic em ployee-compensation plan: It took a number of days to calculate compensation, and it was done all manually on a homegrown Access application, With nearly 350 stores, we outgrow it " says Tom Wysocki, director of strategic sys-

tems migration at Select Comfort. "Our compensation plans are pretty complex because our sales rees can switch stores on a daily basis, and we have different bonus plans for managers, district managers and regional managers," says Jason Otten, a software developer at Select Comfort. "Under the old system, it would take a person three weeks to do comps, then

they'd take a week off and start all over again. With Oracle's OIC [Oracle Incentive Compensation! it probably takes three days, and with the new yersion of OICI11581 and our better implementation of it, it will take a matter ofhours'

Select Comfort will continue to face challenges, as will any company recon ciling EIM with legacy data stores and

compensation complexities. "There will always be some issues from the IT perspective," says Wysocki, "We still face challenges with recalculations for warranties and returns - how do we manipulate all that? Our feeling is of In system) services 80% to 85% of requirements, grab hold because you can

customize the rest." "Our biggest problem is when we break our own rules because each of those requires manual ad-

justments," adds Otten. actions per month, and there's 000 assessed has you can't have rules for

7:Flexen too faces data integration challenger. To feed the Callidge surtem, the retailer has to pull in multiple line items like store-level subgrouplevel and market-level data, as well as performance data

With thousands of data points. there's a certain amount of error that's going to be a part of that data. But when you're dealine with someone's compensation, it has to be perfect, and the world of IT often does not operate perfectly," says Guth. "There's a chal-

lense for HR on understanding the Simir ations of integrating large databases and for IT on recognizing the standard they had established - one tenth of a percent error rate - iso't OK anymore " An EIM deployment can be a good

time for executives to examine whether these plans are necessary. Barron says Moreover, EIM systems can deliver

VENDOR SAMPLE For a last of EM enhance vendors on those Web see

O QuickLink 42652

tangible and intensible returns on investment by reducing overpayments. ensuring that payments are made on time and improving employee relations, says Jim Holincheck, an analyst

at Gartner Inc. "You might not reduce head count much, but it's worthwhile to get better accuracy, happier employces and better alignment with corporate strategies. There's some cost savings, but justification comes more from the flexibility to adjust plans reduce errors and increase employee productivity," he says. O 42634

Gilhooly is a freelance writer in Falmouth Maine You can reach her at kymg@maine.rr.com.

JUST GIVE ME MY MONEY

THE ABILITY TO DELIVER timely, acc ate payments and thereby improve re ips with emp yees is one of the most touted benefits of EM. Another is reproved productivity, a goal that's furhered by giving employees access to variable pay systems so they can regu larly check commission rates, progress on mentas, navment schedules and oth-

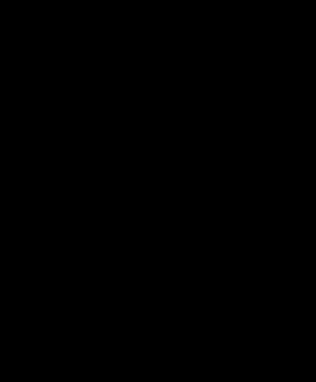
At Liberty Mutual Insurance Co. in Soston, providing Web-based visibility nto its EIM application "has been a big ing for sales regs and agents," says on systems manager at the y. "If they can see what's hap whileg on a regular basis, both motivition and productivity are much better With its EIM application from Incentiord. Mass., Liberty M. has gone from being two me nd in compensation po cessing them every 15 days.

voes who can easily see their ts on a rec far basis tend to trust the figures they or and stop wasting time keeping shadow" accounts. "Sales reps we o their own spreads hosts to they can access the com certal and see what they've sold and

EIM can also boost produ sananers and commons ted with calls from em ng on their progress and cor ng about underpaymen sale do the best job po

can see for themselves what's going or and get it addressed," he says. And what of the reputation pinns respected as Luddites, a two that people in carriers, a ray man of cradence when sales force auon hit the mainstream? At Am Hesciences, "most of our regs on to (the new EM system) or well, but we do have a mature sales force, with a number close to re-tirement age, and they're kind of c." savs Dan Eldrido or of business operations. Wil its old system, the company mailed green-bar reports to reps, and one re-wanted it to continue that practice wi the new reports - a request Eldridge of nied. But most of the reps, he says, an thrilled with the new system. "It was

suldn't help but love it." he sa





ty that drove Amerikam Biosciences Corp. to abandon its spreadsheetbased system to outsource EIM to

Dikket system to outset. Pa-based Synyny Inc.— "So thin late repy for North American Part 200 takes repy for North American the Compensation plant," say Dan Ebridge, manager of business operations at Piacasway, NJ-based American with more than 6,000 products in the bistoche equipment supplier; a portfolio, "clearly we don't incentivize at the product level, but with numerous compensation plans, often involvment of the compensation plans, often involvment of the compensation plans, often involvtion and product of the compensation of the c

pies. he says.

Beyond the difficulties generated by
the plans themselves. Amersham had
problems with sales report accuracy
and timeliness of incentive poyments,
says Belridge. "It was such a massal a
process for every plan participant, we
had to basically restea an Excel workbook. It would take us six to cight
weeks to real-culties the quanterly incentives,
and once we paid the incentives,
where the control of the control of the
works design with corrections. So
during a good quarter, we would spend
10 weeks doing incentives and or
10 weeks doing incentives so and or
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10 weeks doing incentives so and or
10 weeks doing incentives and or
10 weeks doing incentives so and or
10 weeks doing incentives and

weeks doing value-added work."
This intensive effort limited Amerisant to updating sales reps with progress reports on incentive goals only once per quarter. With Symygy hundling EIM, Amerisant can quickly calculate variable psy, and reps can readily check reports via the Web-based Symygy Viewer. Eldridge has been able to eliminate one comeensation analyst

position, but more importantly, he says, "we've been able to distribute individual responsibilities so that my department has become a value-added resource for the entire company."

Suite Deployment

Companies transparent or companies or

moves to be there when they do. In addition to best-of-breed vendors such as Callidus, Incentive Systems Inc. and Syngy, ERPVCRM vendors are adding EIM capabilities through innovation or acquisition. For example, Siebel Systems Inc. Just bought Motiva, Siebel Systems Inc. Just bought Motiva, and Oracle Corp., SAP ACI and People-Soft Inc. have added compensation capabilities to strated customers that

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Select Comfort will continue to face challenges, as will any company reconciling EIM with legacy data stores and compensation complexities. "There will always be some issues from the IT perspective," says Wysocki. "We still face challenges with recalculations for warranties and returns.— how do we manipolate all that? Our feeling is, if a system) services 80% to 85% of requirements, grab hold because you can

customize the rest."
"Our biggest problem is when we break our own rules because each of those requires manual rule.

justments," adds Otten.
"We do about 60,000 transactions per month, and they're 99% correct, but you can't have rules for every situation."

7-Eleven, too, faces data integration challenges. To feed the Callidus system, the retailer has to pull in multiple line items, like store-level, subgrouplevel and market-level data, as well as performance data. "With thousands of data points.

there's a certain amount of error that's going to be a part of that data. But when you're dealing with someone's compensation, it has to be perfect, and the world of IT often does not operate perfectly," says Guth. "There's a challenge for HR on understanding the limitations of integrating large databases and for IT on recognizing the standard they had established — onetenth of a percent error rate — isn't OK anymore."

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Elit care also boves productively for managers and componention analysis, who, when using mensual systems, can who, when using mensual systems to be insustated with calls from employechecking on their progress and copications are proposed to the factors analyst. July Intifulphock, "Solospoople do the best job policing them shipps, and with self-service, the can see for themselves what's going or and get it addressed," he says,

and got it addressed," he says," And what of he reposition primed on absorption in Landilles, a ray that present of the same and the sa

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The human body has a powerful ability to mantana control, as do IBM selvent" Sense's systems They can the jour voyur fun, appoilations and integrate seamlessly with IBM selvent schemes' systems to support windows' applications. So you get the power to manage your server farms from a single control point while sharing spec, storage and operations resources Result vastly simplified server management that can help maximize and searching your infrastructions. So take control, the control of the contr

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Improved Security Through IT Diversity

Security expert Bruce Schneier explains why homogeneous systems are risky and why software vendors should be held liable for the bugs they create.

In his recently released book. Beyond Fear: Thinking Sensibly About Security in an Uncertain World (Conemicus outweigh the advantages Books, 2003), security guru Bruce Schneier arrays for a more common-sense and less technology-centric approach to both IT security and physical security. In this interview with

Communerworld's Joikumar Vijayon, Schneier shares his views on IT security. You recently on-wrote the report "Cyberinsacurity: The Cost of Monopoly. How the Dom-inance of Microsoft's Products ses a Risk to Security." Would u have written it if the world

had been standardized around another operating system? Of course. The problem is not specific to Microsoft; it's a general problem of monocultures. The security risks would be no different if the country standardized on Macintosh System 10 or Linux. The security risks were the same in 1989, when the Morris worm propagated freely in an Internet that standardized on Univ.

oneous IT environ with the petential

risks? In some ways, it's a judgment call. The question is whether you don't put all your euses in one basket, nr vou put all your eggs in one basket and guard the basket. In balance, I think that the risks of a monoculture in operating systems.

Last year you wrote about the need to fix network security by hacking the hunners climate. What did you mean? Network security is planted by rood

technical solutions that inst don't work. Companies install firewalls but don't confloure them properly. Network administrators don't install patches. Software companies don't surize secure cofesses The problem here is not rechnical, but economic.

nomic problem? The economtes of security is such that the effects of insecurity are largely an externality - the costs

making the security decisions. The only way we can fix computer security is to fix this economic problem. We need to take the companies in the best position to fix all these security problems - the software manufacturers - and make it in their best interest to do so For ware the advocated software liability as a way to do this. Once a company like Microsoft is liable for damares as a result of its software volnerabilities, you can be sure that they'll start taking

But don't users have a responsi bility as well? It's clear that Microsoft doesn't hear 100% of the responsibility for these problems. But it is also clear they don't have a zero nervent

liability. That is what the courts should decide Courts What do you mean when you say do this all the time. How much

each party responsible for? What's to be done about the natching problem? There is

aren't borne by the companies nothing that can be done There are too many natches they don't work your wall and companies can't keep up Blaming companies for not installing patches is blaming the victim - it's not right, and it's not fair. Software quality needs to improve; patchine after the fact no longer works.

make us physically safer? Technology basn't made us safer because safety is not a function of technology. Real security comes from people. Techthose vulnerabilities seriously. nology is just a security tool. There are lots of examples post-9/II where [people have assumed] that technology will solve their problems. People think that masic technology will make them safe. That is not the case

Why hasn't technology belond

You argue that the focus should not be so much on threat avoidance but on risk manage What do you mean by that? Security is always a trade-off:

What are you getting vs. what are you giving up? Sometimes more security makes sense, and sometimes less security makes sense. When people think about security, they inherently think in terms of this risk management trade-off mentality. It doesn't matter how effective a security system is at avoiding the threat If a security system does not make business sense, it's not going to be installed.

the threat-avoidance IT security

it takes is for the CFO to be in charge of security. The last thing you want is for security people to make these sorts of security decisions because they don't have a broad enough view. You need a financial person to look at the risks, the risk reductions and

Why is it so hard for comm to get IT security funding these days? From the point of view of the CEO, the risks aren't very great. It's just not worth spending a lot of money on security. That view is changing as we speak, however.

What's driving that phance? The increasingly public Internot enistemics. It's in the news

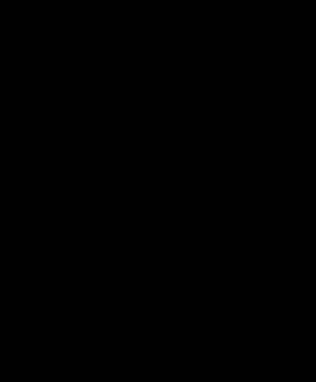
all the time. Why are companies having such a hard time measuring the ef-

fectiveness of their IT security efforts? It's hard to measure how effective security is. If no one ever robs your home. does it mean that your home security is good, or does it ered trying? In some ways, you make your best bet based on houses around you or in your neighborhood or by measuring comparables. The problem is that there is no standard benchmark against which to measure your own socurity Even worse, if you have had no successful atracks you might get your budget slashed

because "obviously" there's

What's your position on full disclosure of vulnerabilities? The only mason that software companies are paying attention to vulnerabilities and issuing patches is because of full disclosure. Before researchers started publishing valnerabilities publicly, software companies would rose tinely deny that the vulnerabilities existed. Full disclosure is what's petting them to take security seriously, and it's what's keeping them honest.

Yes, it also helps the bad guys. But the benefits prossly outweigh the disadvantages.



Improved Security Through IT Diversity

Security expert Bruce Schneier explains why homogeneous systems are risky and why software vendors should be held liable for the bugs they create.

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outweigh the advantages. Last year you wrote about the need to fix network security by hacking the business climate. What did you mean? Network security is plagued by good technical solutions that iver don't work. Companies install firewalls but don't configure them properly. Network ad-

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Why hasn't technology helped make us physically safer? Technology hasn't made us safer because safety is not a function of technology. Real security comes from people. Technology is just a security tool. There are lots of examples post-9/11 where [people have assumed) that technology will solve their problems. People think that magic technology will make them safe. That is

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What's driving that change? The increasingly public Internet epidemics. It's in the news all the time.

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Artificial intelligence is making online commerce more flexible and powerful.

When electronic marketplaces evolved out of the dot-com boom of the late 1990s, conventional wisdom held that these digital exchanges would operate more efficiently than physical marketplaces by removing the middleman and streamlining the procure-

monty process.

The control of their exchanges have gonturned significant operation of efficiencie for
their participants. Tummas Sandbuth has identified other improvements that can be realized.
Sandboth, who runs the Agent-Mediated Electronic
Commerce Laboratory of Carnego Median University
Commerce Laboratory of Carnego Median University
control of their control of their

decision-making processes.

The approach, which draws upon artificial intelligence and operations research techniques, can be applied not only to business-to-business auctions to be applied to the process of the proc

public works projects.
Computerworld's Thomas Hoffman recently caught up with Sandholm, o 34-year-old former world-class windsurfer, to discuss the work he has been doing in

A bidder can say, "I'm willing to pay \$100 for Items 6, 7 and 8." But the problem of determining who wins

what items is a most difficult problem, and we've built algorithms to help address this. - TUOMAR SANDHOLM Describe the research yea/re design. As a high level, what we do is design and build descronsic marketplaces that lead to more efficient outcomes. Thinks of a traditional procurement auction. The seller has to 'prelow' the items to be bught. But that desoy' a laways meet the bidders' necks and optimize the market-place. What we've created are suctions where people can bid expressively by building their own self-selected loat of merchandiscl.

For example, a bidder can say, "I'm willing to pay \$100 for Items 6, 7 and 8." But the problem of determining who wins what items is a most difficult problem, and we've built algorithms to help address the

What's an example of this? Consider an auction where the bidders have submitted bids on different, overlapping packages of items. For example, one bidder can bid 5100 for A. B and C. Another bidder bids 550 for C. A third bids 570 for B. Now; in this small example, it is relatively easy to see that the auctioneer should accept the latter two bids because he will col-

should accept the latter two bids because be will collect \$1.00, which is the highest possible revenue. On the other hand, if there are tens of bids, this becomes difficult to determine by hand. Our algorithms solve this problem optimitally with even hundreds of thousands of bids. The techniques used are All environments.

How doe can Al be applied to e-commerce? What are the current hardies, and can they be overcome? There are lots of different things that can be applied here. Another

stream of research we're doing is automated mechanism design. Mechanism design is a subfield of pame theory. The game might be about designing the rules of an ascition or that of a divorce-settlement arbitration or a public forum over whether to build a hocker rink or a bridge.

Here, the idea is to design the rules of the game automatically using optimization and Al. We've solved a number of open problems, such as designing optimal public-good voting schemes and revenue-maximizing multi-item auctions. These are all very recent initiatives. This has only

been going on for a year and a half

What are examples of some "rules of the name"? We

Sandholm Semantics

Operations research. The applicatio (typically) of scientific, methematical and computer inchreques to solve optimization or decision-making problems.

reprise triseasty. The study of how groups of right interact either for a common cause or for air own individual goals.

verse assettors. An innovative pricing mique, typically conducted online, in which in compete in real time by bidding lower as see other prices.

ppressive assotions. An action in chi bayers bid on self-selected packages of me or express their preferences in purchasing ms, such as, 'I don't servi any single supplier

Mochaniam dealgn. An adomated way o design the rules of a game so that participants are motheted to report their preferences truthuly and so that a socially desirable outcome

have goverated optimal — that is, in the sense of maximizing the sum of the divorcess 'uillities divorce arbitration schemes. In usual divorce arbitration, the divorces might lie about how much they value the different assets that are to be divided ed up. In our scheme, the divorcess are motivated to tell the truth, and the assets are divided as well

We have also used our automated mechanism design software to design pothent rules for public-good problems. As an example, we have readed the question of whether to build a bridge, an ice hockey rain, neither or both. Again, this is trickly because the different parties may lie about how much they value the different forcio. Our system designs the rules so that they are motivated to tell the truth, and the so-cial choice is a good an possible.

What now technologies are you working on that might emerge on the market several years from now? Consider

voting. A seminal result in voting theory states that very voting protocol that is not discitatorial is maggioulable in the sense tant in some cases a voter card achieva a better outcome for hissard by voting strategically — that is, ranking the candidates differently from his true perferences. We are designing voting mechanisms where constructing a strategic vote tranking that benefits the voter is probably so hard computationally that the voter cannot do better than stell the truth.

In other words, we are using computational complexity as a barrier to strategic behavior. © 42706

Smart Auctions

O MANY IT PROFESSIONALS, application packaging may sound like the shrink-wrap you tear off a box, but for Doug Glenn, it's a critical step in controlling Windows application support costs. Glenn, senior technical analyst at

electronics manufacturer

Remet Electronics Corp., uses a said of tools from
Plymouth, Mich.-based Wise Solutions Inc. to help
control the installation process and deliver a consistent
est of updates for some 200 applications his
group has deployed on Kemet's 3,000 Windows designed

nops and alsopose. Under pressure to manage support costs, IT Under pressure to manage support costs, IT groups are increasingly locking down desktops using construer distribution tools that automatelly deliver applications, issue executive update and published published to the construer of the construer of the construer of support of the construer of conflicts. Although these third-party packaging tools can help, the process of bundling applications isn't abuses rate, users say.

Packaging Benefits

The use of application-packaging tools has picked up since Microsoft Corp. introduced WI with Windows 2000, says Romi Colville, an analyst at Gartner inc. in Stamford, Conn. Prior to that, users and software developers created custom installation screpts that often overwrote Dynamic Link Library (DLJ) files used by other programs — a sinstain administration diaboled "DLL, bell" — and that took vastly different amoraches to the installation norms.

approaches to the installation process. What statisticated that process by dictating the use of a Microsoft Installate, or MSI package file, that an application. A substance containing configuration an application. A substance containing configuration data, the MSI file also lets WI keep table on issues the sattempt by one application to overwrite a DLL in use by another. And since it tracks all aspects of the application in installation, WI entranspersed reinstallation of the application to installation. We manapared reinstallation with the application of the exploration of t



While software developers use packaging tools to create .MSIs to ship with their applications, administrators such as Glenn use them to customize those installation files by creating a supplementary .MST "wrapper" file called a transform, or to repackage older, pancompliant setup eye files into MSI files that WI can deploy. The tools read the MSI file directly or run the noncompliant serve eve installation program and compare snapshots of the machine's state before and after it runs to identify the changes made.

Transforms pick up where the software vendor's MSI installation routine leaves off, customizing it to enable automated, "silent" installs of Windows applications by automatically answering prompts for information such as the target installation directory. Such silent installs offer a big payoff when combined with software distribution tools that fully automate the deployment, says Glenn, "We can roll out an entire department in 10 or 15 minutes, and the

technician doesn't need to stand in front of the machine to install it," he says. These packages also include a conflict management database that lets the IT staff detect and correct potential interoperability problems with other

applications before deploying a new package on users' machines. IT staffers can then distribute the "packaged" applications, either by using the group policy features of Windows' Active Directory or through a software distribution tool such as Tivoli "Installation failures have dropped dramatically

ince we standardized." Glenn says. So have the number of application problems arising from difficult-todiagnose conflicts. "Our problem calls have dropped by 50%. Instead of six [desktop support] people. we're now down to three," be says.

Conflict Resolution

Packaging specialists cite another compelling argument for using installation packaging tools: They can help to quickly identify potential conflicts with timecritical security patches and hot fixes before pushing them out to desktops. Patch deployment "has been absolutely huge for us," says Judi Folkert, packaging grammer analyst at furniture maker Herman Miller Inc. in Zeeland, Mich., noting that her company has assigned a full-time Windows NT administrator for patch management.

Such advantages have resulted in a growth in application packaging, in some cases elevating it from a niche function within the software distribution group to a separate group with its own staff, says Gartner's Colville

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But application packaging also presents new chal-lenges. Preparing applications is a multistep process that involves planning with end users to understand

what functions are needed, extensive lab and enduser pilot testing of each package, and a solid understanding of the WI architecture. A technically com petent administrator can learn how to use the packaging tools with a week or two of training, but users say the finer points of detecting and sorting out spplication conflicts come only with experience.

"You're looking at something that's almost like a foreign language," says Glenn.

Managing expectations is another issue. Although vendors may stress how quickly a packaging tool can create a transform, the time to full deployment varies widely with the complexity of the application. While a simple patch may take a few hours. a package such as Microsoft Office can require two weeks or more.

Folloret says Seeley says he sets user expectations for turning around a project up front, "We give s

general rule of thumb of five business days," he says. Another issue: Packaging tools can't succeed in an unmanaged desktop environment. "If your company doesn't have a good computer-use policy and was don't enforce standards, then using a tool like this will be an exercise in frustration," says Glenn. "Manual [unauthorized] installs can throw you for a loop. If you're not aware of them, and they've replaced a DLL, you're not going to know about it."

> As a packhave to figure out how to work around [vendors]



BURN FOR KERT PARKAGNIC COCCOMMEN ANALYST HERMAN MILLER INC.

Microsoft's best practices.

Adding to the frustration and workload is the fact that commercial application vendors haven't exactly raced to migrate their installation programs to the .MSI format. That means packagers must create an eotire .MSI install instead of just customizing the vendor's MSI with a transform. Colville says most new Windows application releases use the MSI format, and she predicts that most applications will

Why peckaging tools for Linux and Mac OS are less compelling. Opinitaria 42079 Tool Time: Here's a last of application saging tools - including one freebox ecid.hei 42872

have migrated by the end of 2005 Users aren't so sure. "In the financial industry. I don't see that many people REYOUR WINDOWS

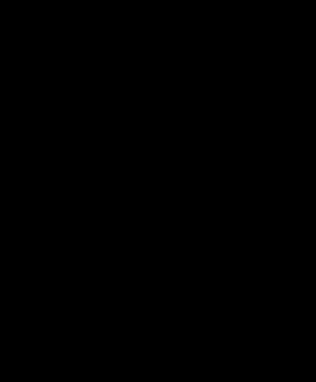
doing .MSIs yet," says leff Goldman. an application administrator who manages some 350 applications at Delaware Investments, a subsidiary of Lincoln National Corp. in Philadelphia. Seeley is also waiting, "I would say 80% of applications still come through without being in an MSI for-

mat," be says. Even when vendors have migrated applications to .MSIs. they often haven't followed Microsoft's standards. "They have done some incredibly stupid things in their installers, and as a packager, you have to figure out how to work around [vendors'] non-

standard choices that conflict with Microsoft's been practices," Folkert says. Packaging tools include a validation function that identifies possible MSI compliance issues, but interpreting sometimes hundreds of errors, fleuring out whether they're important and determining how to resolve them isn't easy, users say, Seeley says problems are abundant but that most be has encountered

weren't "serious infringements." Folkert and Glenn, on the other hand, each cite serious problems with several applications, including Lotus Notes. Both say their experience with Notes left them frustrated. "Notes has something like 1,300 errors in [its .MSI]. We cannot use their .MSI because basically it's broken," says Glenn, who ended up repackaging it into a new .MSL

Nonetheless, says Seeley, packaging tools are "a step in the right direction." And WI also continues to improve, says Colville. "You'll see a new flavor coming out next year" she adds O 4770



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Security Policies? What Security Policies?

Without active follow-ups, security policies no unread, educational programs fade away, and viruses come roaring back. By Mathias Thurman

WAS HAVING LINGER with a group of IT department staffers when the conversation turned to the risk of virus-related worms that have planted our organization over the past few months. Too many times. I said, an unsuspecting employee has opened an e-mail attachment from an duced mulicious code

into our notwork SECURITY To my surprise one nemon asked "How are we and other emnlownes sunnessed to know not to open certain types of attachments?" I was stunned. We have an orientation program and policies that have been published to educate employees on the accentable use of

IT resources, I explained. They looked at me with blank stares. None of the halfdozen people at that lunch table - a mix of veteran staff ers and new hires - had ever seen our IT security briefing or the published security policies that I had laboard so hand to produce. Yet we had posted the policies on our intranct six months are, and they're surposed to be required reading for every employee.

In addition, I had given the human resources department a copy of our security policies and a PowerPoint presentation that it could use to explain them to new employees. HR was supposed to be using the slide show to brief all new hires during their orientation. workshops

What happened? Unfortunately, there isn't a procedure to require new employees to read the policies or a simploff mechanism to ensure that they have read and understand them In addition to developing the presentation for new hires. my department had broadcast several e-mail messages to current employees, with a pointer to the IT security Web page that contains our poli-

cies, procedures and guidelines. That page had received just 560 views from a popu-6,000 employees. I proceeded to follow up by schedul-

ing a meeting with HR. The woman I spoke with was new; the HR representatives I had dealt with before had left the company. She said she had seen the IT security presentation but wasn't aware that HR was supposed to be using it. And her priority, she

noted, was handling things like payroll and benefits. She did assure me, however, that she would eventually review the materials and starr presenting them.



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of man-hours and caused much frustration within the IT department As it turned out, the HR staffer remembered someone calling her to schedule a virus remoted on her own workers. tion, but she had no idea of the magnitude of the problem. This recent virus infestation.

could have been minimized or avoided altogether, I said, if users had read and followed the security policies Then I brought up the inci-

dent regarding an employee the company recently terminated after he used company IT resources to share and distribute child pornography online If that user had been aware of the acceptable-use guidelines and known we might be monitoring that activity, perhaps be would have thought twice before engaging in unauthorized or illegal activity on company time, I argued,

Taking Further Action In the end, to get things back on track, I agreed to participate in the new-hire orientation program by making the security presentation to new employees until the HR staff

felt comfortable enough to run In light of the virus probless we've suffered of late. I decided to spend a few days reviewing and adition the slides to include some addi-

tional information about malicious code. So (ar. I've spoken at une orientation session. Not surprisingly, most of the inquiries were about e-mail and how to handle suspicious file attachments.

curity Web site and contact information for members of the

sponsibility to periodically review the company intranet for new information and to review policies and guidelines, I stressed. And I explained that by reviewing the policies, employees can bein the company identify suspicious activity and prevent malicious code from being introduced into

the necessarie But that's not enough. I'm considering hosting a series of brown-bag lunch meetings and asking the HR department send out e-mails stressing the need to adhere to and understand security policies. And I'm looking into deploying new tools that can belo me enforce policy dissemination. What I need is a Web-based application that can track which employees have viewed

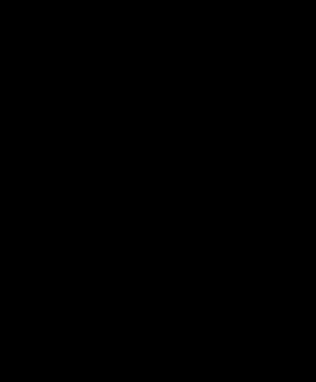
the policies and whether they have rend all the ones that arply to their job functions. Depending on the job, certain policies apply more than others. For example, a marketing representative doesn't pend to understand the Unix remote

access policy. I already have vendor propaganda. What I need now are references from experienced users. If you have any background with such applications, I invite you to send me an e-mail or share your thoughts in the Security Manager's Journal forum.

WHAT DO YOU THINK? This week's journal is written by a real secur-terminates. "Mathies Thurmon," whose

name and employer have been discussed for obvious reasons. Contact livin at methus, n our lower QuickLink #1590 To tend a composite acresse of our unity Menager's Journals, op online to





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dozen people at that lunch table — a mix of veterns staffers and new hires — had ever seen our IT security briefing or the published security policies that I had labored so hard to produce. Yet we had posted the policies on our intranet six months ago, and they're sup-posed to be required reading for every employee.

In addition, I had given the human resources department a copy of our security policies and a PowerPoint presentation that it could use to explain them to new employees. HR was supposed to be using the slide show to brief all new hires during their orientation

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> **45** None of the

None of the [staffers] had ever seen the IT security briefing or the published security

briefing or the published security policies that I had labored so hard to produce. clearly, it wasn't registering with her that this might he important. So I explained how the recent virus outbreaks had consumed countless numbers of man-hours and caused much frustration within the

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with the address for our IT security Web site and contact information for members of the security team.

It's every employee's responsibility to periodically review the company intranet for new information and to review policies and guidelines. I stressed. And I explained that by reviewing the policies, employees can help the company identify suspicious activity and prevent malicious code from beine introduced into

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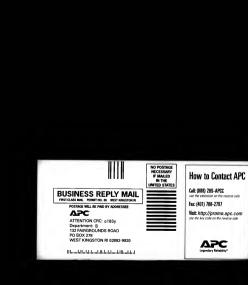
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Vendor Upgrades Performance Anns OutlookSelf Corp. has released okSell Ement 4.0. the

d version of the company's and anthears. The new e includes a library of her ce indicators, said rd, Conn.-based Outled Soft. The software is priced starting at \$175,000 for 50 users.

Relicore Undates Configuration Tool

ore inc. announced R Clarity Version 3.0, an and it tool for distributed applicaa mai time view of ch cations, servers, illes, y keys and permi

IRM Rlade Servers Support Linux

M now offers support for Linea rating systems from SUSE as AG and Turbolinus Inc. in a servers featuring its 64-bit PC chies. The com aid it plans to support its AD reion of Units early next year. M also soils intel Xeon 32-bit r the PersonPC blade starts at

Check Archiver Adds Day 2 System

or York will use TRIPS Day 2 ns Inc. in Ornal etronic image each or will let its bank cont

NICHOLAS PETRELEY

NetWare Reloaded

IFE IMITATES ART, or at least popular entertainment, more often than we'd like to think. Some of the current drama in the IT industry has intriguing parallels to a recent, popular movie seguel. Here's an excerpt of how

the screenplay might go in the IT universe version: [Immediately after grans-Neowik So you don't need itous kung fu fight scene No. 14 CEO Mornheueman

appears in front of a small crowd 1 CEO Morpheusman: Novell customers! Hear me! It is true what many of you have beard. The competition has eathered an army and as I speak, that army is drawing nearer to our

[Tiny crowd of subjects wearing red T-shirts emblazoned with an N whisper anxiously

among themselves.1 CEO Morpheusman: I stand here without fear because IRM remembers IRM remembers that I am here oot because of the path that lies before me, but because of the path that lies behind me! IBM remembers that for 10 years we have owned Unix. And after a threat of war from SCO, IBM finally remembered that which matters most: We are

IA few people applaud in the crowd. followed by gratuitous kung fu fight scene No. 15, after which Councilor IBM meets with Neovell on the englneering level at Zion.1 Councilor IBM: Do you care for some

company?

Neovalt Zzz. ... Huh, what? No thanks, we're still trying to figure out what to do with Ximian.

Councilor IBM: I was thinking about Linux. Take a look at these machines. I like to be reminded that this company survives because of our machines not the operating systems that run oo

us. Is that your point. Councilor Councilor IBM: No. old men like me don't make points. We don't need a point, just effects.

lots of kung fu and special House Why don't you tell me what's on your mind. Councilor? Councilor IBM: We want

you to buy the commercial Linux company called SUSE. It's a great company.

Indeed if you knew SUSF like I know Neovel: Why don't you buy your own commercial Linux? Councilor IBM: Are you outs? See those

Linux distributions? I have absolutely oo idea how they work. But I do understand the reason for them to work They save us the trouble of building and maintaining our own operating systems, so we can make more money selling the hardware. Buying one of them would be more pointless than

the plot of this movie. We have it made - or at least we had it made until SCO started frightening our customers with its intellectual property lawquits

(Gratuitous kung fu fight scenes Nos. 16-25 follow after which Neovell meets the Arcanetech.1

House Who are you? Arrandsch I am the Avenuetech the power behind IBM. You have many questions. While your first question may be the most pertinent, it is also

the most irrelevant. Neoval: Why does Novell still exist?

stack Actually I was expecting you to ask what this movie is about. But since you asked, the reason Novell exists has oothing to do with the fact that its software design is nearly norfect. The inevitability of its doom is a

consequence of choice Nearly 99% of all customers will accept the program, as loog as they are given a choice and that choice is mapipulated by billions of marketing bucks. The question is whether or oot they have a choice. But here's a better ouestion. If NetWare is already losing

market share hand over fist, why are people more likely to want NetWare now just because it runs oo a Linux kernel? Howelt So this is about NetWare. Arcanetuck: No, it is about hardware.

Novel: You mean hardware as in the many platforms supported by Linux? Arganeteck: No. hardware as in our hardware sales. You are here because Linux is about to be destroyed. But if you own both Unix intellectual property and a Linux distribution, that all

but guarantees Linux will be safe. Heavelt Ah, so you do need us in order to survive.

Arcanetech: There are levels of survival we are prepared to accept Which brings us at last to the moment of truth. There are three choices. The door to your right marked "I agree to

purchase SUSE" leads to \$50 million and an all-expenses-paid trip to Germany. The door to your left leads to continued irrelevance. You can choose one or the other, or you can choose what's behind door No. 3. Newelt I'll take door No. 1. If that trip

to Germany turns out to be a stinker. I would hope that we don't meet sesio Arcaneteck: We woo't, at least not in this movie. The rest of the footage is kung fu fight scenes and special ef-

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fects. O 42908

MANAGEMENT

Survey Results

Find out what IT workers said about topics like job security, stress and their expectations for the job market in Computerwork\$ 2003 Job Satisfaction Survey. See the charts starting on Page 36



Can This Relationship Be Saved? Layoffs have left managers with less time for coaching

and advocacy; and workers like Julius May of the state of Washington (left) say managers must do more to recognize the efforts of their staffs. What will it take to restore the lines of communication? Page 38



Job Satisfaction: It's Highly Overrated As an IT manager, keeping workers satisfied shouldn't be your primary focus. Instead, try to improve your IT workers' motivation, says columnist Paul Glen. Page 42

WHAT'S WOOD HERE? The topid HERE?



economy has created a slow burn in the IT workforce. With a boatlead of work to do, little training and a lack of confidence in their companies, today's IT workers are feeling overtaxed, disenfranchised – and boiling mad.

a staffers without for bigger raises and more advancement opportunities, they were grateful overall just to have jobe, given the weak comonny, have jobe, given the weak comonny, has sworn arens, Comparierworlde, 2003 Job Satisfaction Survey shows a work-force more woral about its frustrations. Fifty-sits precent of the 95% exception of the 95%

WORKERS are cetting a lit-

Survey showed that while a

majority of managers and

tle hot under the collar. Last year's lob Satisfaction said they don't think they're working to their full potential, and 59% report being more stressed out than they were a year are.

Same All Over

It may be cold comfort to IT workers, but may be cold comfort to IT workers, but they're not alone in their dissasting to the control of the confort of the

"I think you could look at every job function in the U.S. and find the same thing," says Paul Klein, senior vice



About This Survey

In August 2003, for one week, Com world invited visitors on its Web site to tale he Job Satisfaction Survey. The 936 respo dents had titles ranging from CIO to help clean operator, were employed full or port time or as contractors, and represented a wide range

stries and company sizes. The majority of respondents were men nts didn't indicate gender. A mejority (549)

aid they worked at IT user organizations, while 241 nts said they were employed at technolo-companies, 107 indicated that their place

was a consulting firm, 26 said the loss, and 20 didn't specify two of

"There's no way Fil get close to even 40% of the mat director, says Jacon D. Elevine, the MIS director at M

_______ Continued from page 35 ed - have been doing head-count reductions. Often, the work is migrated

president and CIO at Rich Products Corp., a frozen foods manufacturer in Buffalo, N.Y. "Talk to accountants, HR managers and people in R&D, and you'll find similar reactions."

CIOs and other IT career experts say some of the discontent can be ried to the still-lineering effects of the Ant-comboom, when many IT workers were

showered with big boouses and other perks. Now that cost-cutting is king and unemployment remains high, employers are the ones calling the shots But IT managers are feeling the im-

pact, too, as Jason D. Blevins reports. Blevins is MIS director at Manchester Tool & Die Inc. in North Manchester, Ind., where he conservatively places his compensation at 20% of what an average U.S. MIS director takes in, "And there's no way I'll get close to even 40% of the national average," says Blevins. But I'm oot a city person, and I expect some pay drop working in the country." Save Tim Monteith, CIO at Domino's

Pizza LLC in Ann Arbor, Mich., "With the economy being tighter and IT [opportunities] oot nearly as wide open as a few years ago, people in IT might feel more stressed and more trapped." **Unwieldy Worklead** Some IT workers say it's common for their employers to redistribute work among remaining staffers when coworkers leave voluntarily or are let go.

"A lot of companies - mine includ-

business units. "Once you're in IT. you're stuck in IT." Carr says. Lance Lauro, a husiness technologist at Raythron Co. in McKinney. Texas. is also looking for a job change. He says be would prefer to move to a more technology-focused job - from his current role as an SAP administrator to a database administrator. When he has approached his man agers with the idea, Lagro says he has

to two or three other people, and they

tend to get overloaded," says Aaron

Carr, an advanced business analyst at

Cooper Tire & Ruhber Co. in Auburn.

come more involved in the husiness

side of IT projects and less technoloev-focused. That's one of the reasons

why he's pursuing an MBA at Indiana

there are job opportunities within the

IT department at Cooper Tire, but it's

tourh to move out of FT into one of the

University in Fort Wayne, He says,

at 60 out of 100

Ind., who rates his own job satisfaction

For his part, Carr says he'd like to be-

been told there aren't any openings. "But when there are openings, they're hiring people with experience instead of giving me a chance," he says, citing two contract database administrators who have since been brought on full time at Raytheon.

Overall, Lagro says, his job satisfaction level "is pretty low. The only thing I like about it is that I'm on the edge of



Somewhat satisfied: 35 Somewhat satisfied: 30

Remained the same: 31%

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More work will be outsourced Hiring freezes will continue Salary treszes will continue

Bonus freezes will continue

the Dallas/Fort Worth area out in the country, which is where I want to live."

The Learning Deficit

At some companies, training has been cur due to budget constraints. In other cases, IT workers say they have trainine opportunities but don't have time to attend classes. To fill short-term project resource demands, many companies are opting to hire contractors who have specific skills while market prices and low

Inchie Faran, vice president of buman resources for corporate IT at Cendant Corp., says she agrees with Com-puterworld's findings about the rise in dissatisfaction levels among technologists. In a recent survey at the New York-based provider of travel and real estate services, most in the IT department said they're happy working for the company, but they also said they'd like more career advancement and

training opportunities, save Faran Dissatisfaction could lead IT work ers to iump ship once the economy rebounds. But at Condant, at least for the time being, "we haven't had a lot of voluntary turnover," says Fagan. "There

isn't a lot of work in the market." While IT workers may be dissutisfied with their current jobs or companies 77% of the respondents said they're still glad they pursued a career in IT.

"I'm one of the happy people. I always have new challenges when I come to work," notes Scott Grossweiler, a telecommunications specialist at Meriwest Credit Union in San lose

Grossweiler, who has been in his current position for a year, acknowledges that there aren't a lot of opportunities for advancement at the credit union right now, but he says, "I'm happy with where I'm at and what I'm doing? But given the rise in offshore out-

sourcing and the threat it poses to job security, some people are openly questioning their profession's future. "Marketing and salespeople work 9-to-5 jobs — they don't have the stress levels we do, and they don't have to work weekends and holidays," says Fric Mortensen, a database administrator at

Royal Appliance Manufacturing Co. in Cleveland. "I'd say half the IT people I talk to - both within my company and outside - are wondering whether there's a career opportunity for them outside of IT." O 42359

WHAT YOU CAN DO

Voc 43% Don't inner 196

Remained the same, 34%

Not at all stressful, 2%











HOW SATISFIED Are You?

We asked IT professionals responding to our survey to rate their level of satisfaction in the following areas. Manager and staff responses are horized out before

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Can This RELATIONSHIP Be Saved?

Senior managers feel stretched thin. IT workers feel they're not being heard. What will it take to restore these lines of communication? Here's what some say can be done. By Staye Ulfielder

THYBER SILLS modering based on the influence wanting, many of the IT workers between the statistics and place the binner space of the IT workers and place the binner squarely at their of layoft, those managers are tadded with more direct reports and bigger budget headsether. They spend so must be supported by the statistic of t

advocacy also other managerial dunes. Meanwhile, howering in the background — never far from IT professionals' minds — is the possibility that some of the technology workforce will be replaced by offshore outsourcing. According to some sources, communication from senior management decreases as outsourcing in presses.

creases as outsourcing increases.
What will it take to restore the lines
of communication? Interviews with individual contributors and managers indicate the problem is a deep, protracted
one — but there are small steps that can
be taken to improve the situation now.

MANAGERS "Our budget is right.

and we have to learn how to make do with what we have," says Julius May, a database administrator for the state of Washington. Employees there have gooe without raises for the past two years — and increases aren't on the horizon, says May.

ITH THERE SELLS moldering and their influence waning, many of the IT wowled to more to pass along knoles. "They access all passes that's sent their who responded to our job auditactions survey as the state of the service. When you that it to recognize the employees that provide the service. What survey we be hence spurrely at their set. But with every new and passes and passes always at Meta Group Jac. in Sam-always at Meta Group Jac. in Sam-Jone Jac. in Sam-Jone

counteract flat salaries and boost morale — if they're resourceful. "If you're stuck with no budget for incentives, you've got to be creative," Schafer says. "You can start an [IT] employee newaletter, you can offer

incentives, you've got to be creative," Schafer says. "You can start an [IT] employee newsletter; you can offer wouchers and other noneash awards. These things aren't enough, but even a token of recognition helps."

LDOK AT THE BIO PICTURE.
Of course, even managers
have managers. Many middle-management IT professionals who
responded to our survey understand
their direct reporter measurement but

their direct reports' rescotment but have adopted a "What can you do?" attitude, because it's obvious that their bosses are struggling just as they are. That's how one network manager at an East Coast satellite office feels.

at an East Coast satellite office feels. Though his employer, a Californiabased retailer, is prospering, senior munagement thas refused to expand his three-member support staff. The staff includes just one dedicated help desk member — and 320 users. Two been pleading my case every year for three years, says the manager, who asked that neither he nor his company be

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named. Each fall, his request for more staffers is denied. "The rationale is that there's no money in the hudget." he says. That preposterous ratio means the manager spends a great deal of time supporting end users himself. He doesn't get to coach, train or manage his direct reports as much as he'd like, and as a result, turnover is high. So this manager is hardly surprised

that his boss, the IT director, iso't effective these days: "He's overburdened: he has more direct reports than anyone else in the company."

MAKE COMMUNICATION A PRIORITY AGAIN, It would be a gross oversimplification to say that the rancor in the IT profession

could be solved in a liffy through better communication. But it's reasonable to note two related items: First, many survey respondents say that communicatioo from senior management took a serious turn for the worse two to three years ago, when the economic slump settled in and offshore outsourcing grew in popularity. Secood, improving communication flow is one fix IT orga-

nizations can make cheanly "Often the things that are easiest to do seem to be the last things companies tackie," Schafer says. "We're

talking fundamental communication." An Oracle database administrator at a Midwestern financial services firm offers a teiling example. He says that a few years ago, wheo the company launched a pilot offshore outsourcine project, "the [IT] director was talking openly about it," and as a result, there was little complaint from workers who understood the need to cut costs. But that director has been replaced, and the communication has vanished, says the IT administrator, who requested anonymity. "I doo't hear anything from this [new] guy. Nothing about the ratio of employees to outsourced jobs, oo statistics, nothing,"

Resentment, suspicioo and confusion now reign among the rank and file. "Eighteen months ago, I was told I'd be cross-trained in UDB IDB2 Universal Database, IBM's relational database management system). Instead, they're training two of the loutsourcers') consultants on it." be says. Managers seeking to rebuild trust among their IT employees have their

work cut out for them; outsourcing, layoffs and tight budgets have created ill will that verges oo bitterness. Perhaps one database administrator in the Midwest best exemplifies the

prevailing attitude: "It's hard, when you have a family, to go from making \$80,000 or \$90,000 a year to making \$40,000 a year — and worrying because there's some offshore guy who's making half of that." © 42357

Ulfelder is a freelance technology and business writer. Contact him at sulfelder@charter.net.





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Very satisfied: 42%





JOB SATISFACTION:

ew managers are genuinely surprised when the results of an employee satisfaction survey are revealed. You really don't need the science of statistics to know that people aren't entirely pleased with every aspect of their work lives.

Given the state of our industry over the past few years, most IT managers are facing at least some degree of worker disaffection. In fact, elenty of the managers themselves are similarly discontent, as Computerworld's Job Satis-

faction Survey also shows. But once faced with a disparisfied FT workforce what should you do? Hide in your office? Fire the most disgruntled people? Pretend it isn't happening? Refore making any deci-

sions, let's ask an important question: How important is iob satisfaction anyway? Of course, good leaders want their people to be reasonably happy, but how important is it, really, that they be satisfied? This may sound a bit callous, but I've never been particularly captivated

by the idea of managers

making job satisfaction a high-priority goal. I have a few reasons for my skepticism: 1. I'm not sure it's possible to satisfy peonia. Complete satisfaction just ign't weet

of the human condition. We are a restless and ambitious species. 2. I'm not sure it's desirable to satisfy peo-

de. Satisfaction doesn't guarantee productivity. In fact, it probably does just the opposite. Nor does satisfaction spark creativity. There's a reason why the old saying goes, "Necessity is the mother of invention," rather than

'Abundance is the mother of invention." I've also never heard people suggest that his paychecks and job security were the source of their group's out-

standing performance. 3. The range of things we measure to sage job satisfaction distracts from what's important and distorts the Irus state of

trations. I've observed that there are a few things that are critical for technical people's happiness: cool work, fair pay, good relationships and a reasonable belief that the future holds more of the same. Most of the things we measure are important only if these pri-

mary things are missing, in which case there's already a problem. So, what should you do about a dissatisfied workforce? From the rants above, PAIRL GLEN you might think that my answer would be that you

uld do nothing, but that's not everly the case. It's not that workers' dissatisfactioo is unimportant, but alleviating it shouldn't be your primary focus. I suggest that you look instead at their motivation, which I believe has much more of a direct impact on what

they can achieve than their satisfaction does and is also much more important for your collective success. People who are motivated are focused on their work more than oo their personal satisfaction. Motivated teams can operate as access bounds of interestinfection, beauti vation can also be a great source of inb entiefaction

So, given all the budgetary constraints that most of us work under today, what can you do to help motivate your staff? Here are a counte of simple

suggestions that don't cost much. First, select wisely. This is the most important thing you can do to ensure that you've not highly motivated project teams. If you want to have a motivated team, pick people to be on the team miles are markingted to be on it Take a minute to think about that, because when most of us are assigning people to projects we do a quick assessment based on all the wrong questions. Usually managers choose based on who's susibable who's not the skills and who's

dape something just like this before. They're all good criteria but none of them is likely to ensure that you've got a motivated team. Try looking also at who wants to be on this project; who wants to learn a new technology, business or project role: and who would want to work with the people who have already been selected for the team.

Second, engage the staff in improving its own motivation. No matter how busy everyone is, you should be able to carve out just a little time to encourage discussions about what would improve conditions. Try taking small groups of staffers to lunch once a week to discuss their perspectives on how things are soins. At worst, they'll know that you're interested in their concerns and points of view. You'll also get the chance to explain the constraints of the situation. At best, you'll get some great ideas that can be implemented to actu-

ally make a difference and improve sat-

isfaction, motivation and productivity. When faced with a disaffected workforce, remember that the opposite of dissatisfaction isn't satisfaction, but motivation. If you want your employ ees to be productive, engaged, excited about coming to work and likely to stick around when job prospects improve, spend more time thinking about how to motivate them rather than bow to satisfy them. O 42356

Glen is an IT management consultant in Los Angeles and the author of Leading Geeks: How to Manage and Lead the People Who Deliver Technology Gossey-Bass Pfeiffer, 2003). He can be reached at info@c2-consulting.com

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Continued from page 1 Comdex

tems Inc., top vendors serving the corporate IT market had only a peripheral presence or were absent altogether. Iai Agrawal, senior project

manager for enterprise applications and information services at Boeing Satellite Systems Inc. in Los Angeles, said the smaller show's lack of key vendors such as Oracle Corp. meant that part of his mission - identifying new technologies and learning how they might be adapted and inteerrated within his

communy - couldn't be scroom. plished. "Typically the

O QuickLink at260 hig players are innovators," Agrawal said. "They bring out the newest and greatest stuff. If they're not here, then they know better than we do not to come. Next year, I don't think

I will come back." James Blaine, a United Auto Workers International union representative assigned to the information systems department at UAW-General Motors in Detroit and a five-time Comdex attendee, also expressed dissatisfaction with the show. "This used to be a one-stop shop" for information on technologies such as

Linux he said In past years, a multiwendor Linux exhibit was housed in the nearby Sands Expo and Convention Center. But this year, the Sands isn't being used for exhibit space. "I can't get it all here anymore," Blaine

..... I don't think I can bear to see another computer [cooling] fan.

BARTON DICKETTS CEDARS-SINAI MEDICAL CENTER

said.

norm at Comdex in past years. but it wasn't what attendees who were attracted by the promise of a corporate IT focus expected to see. **Unpleasant Surprise**

engineer at Cedars-

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Sinai Medical Center in Bever

came to the show

this year to set in-

formation on de-

ploying tablet PCs

within the hospital

to replace hand-

held devices.

Ricketts said he was able to

find some products from Acer

Computer Systems Corp., but

he was disappointed that oth-

what has become a shrinking

show floor. "The his compa-

nies aren't here," he said. "I

[Comdex] will probably be in

Some attendees complained

that too many exhibitors were

hawking consumer electronics

and that many vendors from

China. Taiwan and South Ko-

rea were selling niche compo-

nents such as batteries and

cooling fans. That was the

told my wife. Next year

a hotel room."

er vendors were absent on

America Coro, and Fujitsu

by Hills Calif and a longtime

Comdex attendee, said he

"I don't think I can bear to see another computer [cooling] fan," said Malachy Smith of DNM Technology Ltd., a software and services company in Dublin. He and a colleague traveled from Ireland becau they had heard about the show's renewed focus on the

Blaine said he's undecided about whether he will return in the future. "It depends on what we need to get done at that time," he said. "I think I'd probably spend more time on the Internet [search. ing for relevant information) before coming back here." Barton Ricketts, a certified network

> enterprise. They both said they had wanted to see less hardware and more software. "We went to see [Sun Microssstems Inc CEOI Sover McNealy's keypote, and after wards, we thought we'd go and look at Sun's booth on the show floor," said David

Quirke, DNM's IT services director. "We got there and surprise! - they don't have a Eric Faurot, vice president

and general manager of Com-

proved event me" that follows the bankruptcy Not everyone, though,

thinks the event is waning Paul Smigel, a consulting perbased wire and cable vendor Belden Inc. said he found information here on several technologies be came to investigate, including a means of

giving Universal Serial Bus de-

dex at San Francis. vice access to anyone on his co-based Media network The show still has value, he edged some of the said, though he arreed with shortcomines. But critics that it needs to attract more top vendors. Smirel said he was particularly disarpointed that Novell Inc. was

he reiterated his company's belief that this Gest smaller Comder is laving the foundation for an im-This is essentially a launch show for

earlier this year of the show's former owner, Key3Media, he said. Organizers said the show drew over 50,000 attendees. work engineer for the communications division at St. Louis-

absent, because he's interested in the technology mix stemming from Novell's recent soquisition of SUSE Linux AG. "I want to not my Gooree in it and play with it," he said. Paul Kraska, product marketing manager at Multi-Tech

Systems Inc., a Mounds View Minn-based wender of virtual private networks and voiceover-IP technology said his booth was busy at the show. providing evidence that Comdex is still worthwhile for corporate IT. "If vendors weren't here, they made a mistake " Krooks said "It makes me feel good that we saw the potential." © 43033

James Niccolai of the IDG News Service contributed to this story.

Crosstown Show Blames Comdex for Poor Showing

had pessage peed at Francischem, Masse, and other matters offices. Pe Transport NESS, and the making allians Passed under Geranden histograms Published agreement (ACCA) and a segment of the passed o or the base has of \$2 per copy of the artests price \$00 cores per proper is used the record man of the board only I have all only I age to make the same of the Sub-

FRANK HAYES . FRANKLY SPEAKING

Who Will SCO Sue?

HINGS AREN'T GOING WELL for The SCO Group
these days Business is down. Those Unix licenses SCO
is trying to sell to Linux users just aren't moving. SCOS
lawsuit against IRM is running into trouble. So is SCOS
defense in the lawsuit Red Hat has filed against it. In
and out of the courtroom, SCO is getting beater up on every side.

and out of the courtroom, SCO is getting beaten up on every side.

So what did SCO do last week to fight back? It announced that it's paying its lawyers with SCO Group stock.

And that, by mid-February, those lawyers will sue some large corporate Linux user.

Who will SCO suc? SCO won't say; that's for the lawyers to decide. But it will be one of the LSO companies that got a nasty letter from SCO back in May, complaining about the fact that those companies used Linux — someone who, in the words of SCO lawyer David Boies. "will illustrate the nature of the problem." Some help, but?

If this all sounds a bit, et, unusued - yes, it is, priving most of your legal billis with company stock is certainly unusual. Peve Boirs says so, But at a practical level, here's how it works: When the lawyers make legal threats, SOO's stock price tends to go up. If they lose, of course, the stock price wild collapse - and, in effect, they won't get paid. So it's now in the lawyers' interest to keep that stock price jacked up however they can be a soon of the control of the universe interest to keep that stock price jacked up however they can be a soon of the priving the soon of the priving the soon of the priving pri

And that translates into some luckless corporate Linux user setting sued.

That's a bit unusual, too. After all, SCO is already in court with two separate lawsuits in which the company will have to prove that its copyrights were violated in Linux. Ordinarily, you'd expect SCO's strategy to be to win those cases first; after that, going after

corporate Linux users would be much easier to do.

But those cases aren't looking good. In the IBM suit in Utah, IBM's lawyers have told the judge that SCO has refused to turn over documents and answer questions. SCO is required to do this as part of the pretrial discovery process.

Theoretically, this failure could cost SCO the case, though that's not likely. But judges don't like plaintiffs who do this — especially when part of what SCO has failed to turn over

is an explanation of exactly what IBM is supposed to have done wrong. That sort of delay makes it look as if SCO is stalling

Meanwhile, in the Red Hat case in Delaware, after a series of missteps, SCO wants to stall the entire case for several years. SCO's new lawyers there have asked the judge to postpone pretrial discovery in the Red Hat case until after the IBM case is finished in Utah, so SCO won't have to argue two cases at once. Failing that, SCO wants the Red Hat case most not to that

Wait, you may be saying, SCO doesn't want to do discovery on two cases at once? Then why is SCO in such a rush to sue a corporate Linux user, which will require SCO to cough up much of the same information that SCO has so far refused to deliver in the IBM and Red Hat cases? They don't want that of course Which

means we know just who SCO is likely to sue. We know it will be one of the 1,500 companies that got that nasstyram from SCO in May. We know it will be a company that does business in Utah, since SCO plans to file suit there. We know it will be a company that hasn't upgrad-

ed to the most recent versions of Linux, since
SCO specifically claims that Linux
24 is cbock-full of stolen code.
Mainly, though, we know it will
be a company in financial or legal

trouble already. One that can ill afford a lawsuit just now. One that SCO's lawyers believe will fold instead of fight. Because with SCO already get-

ting beaten up on every side, the last thing the company wants is a real fight. So when SCO picks on a corporate user, it will go after the lamest 98-pound weakling it can find. © 42860

the Comment I think a Grant Irland

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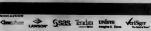


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